SERVICE MANUAL

Solid state colour television receiver
14", 20", 21" & 28"

NIKKAI PERDIO NEI. NETWORK. ETRON

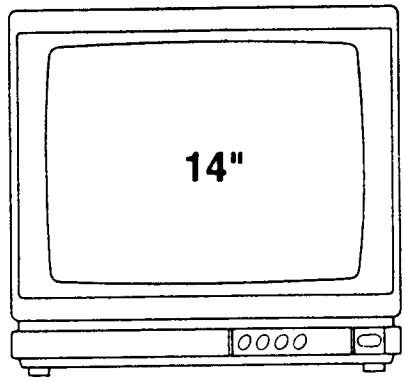
DANSAI

AIKO

CATHAY

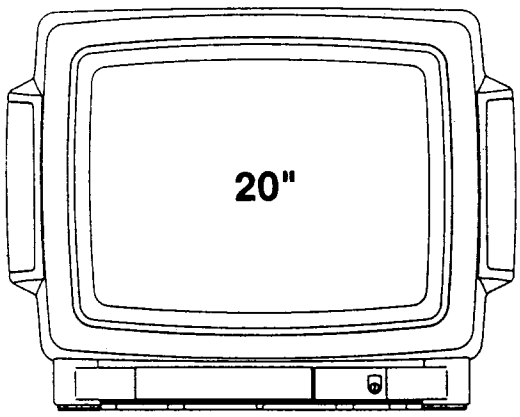
HAMMERSTEIN

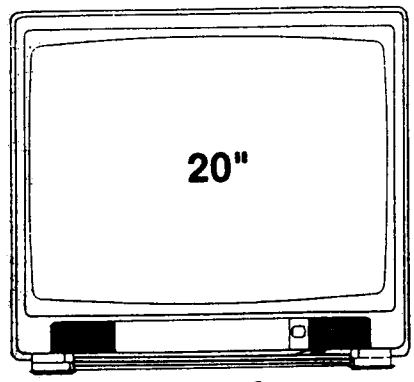
ETRRON



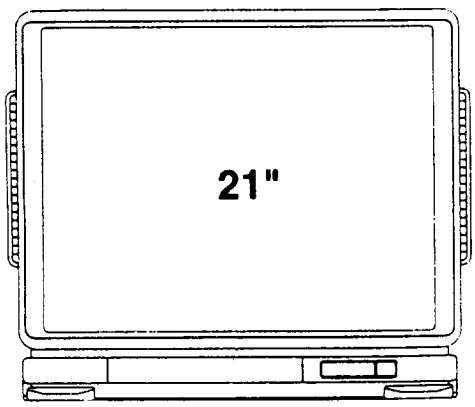
TLG/CT/CTV

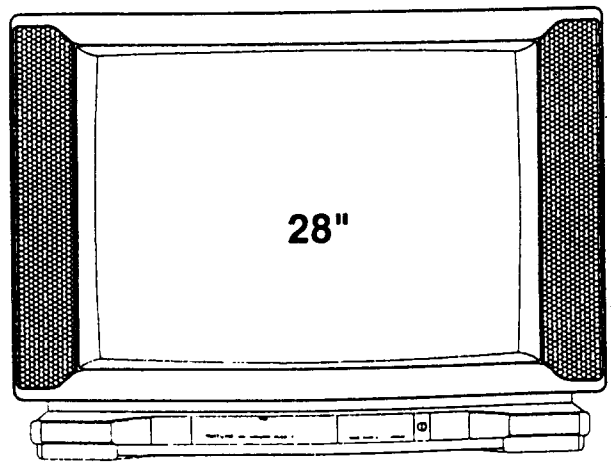
1433 2113
1411 1439
1410 1412
2091 2090
2012 2011
2195 2191
2112
2089
8813
8920A
9220
8921
8920B





9213
9313





SPÉCIFICATIONS	PAL B/G FTZ		PAL SECAM B/G FTZ		PAL I (UK)	PAL B/G
	B/G	CATV	B/G	CATV		
CHANNEL COVERANGE .... VHF LOW ..... VHF HIGH ..... UHF	2-4 CH 5-12 CH 21-69 CH	SS1 - SS2 CH S3 - S20 CH 21 - 69 CH	2-4 CH 5-12 CH 21-69 CH	SS1 - SS2 CH S3 - S20 CH 21 - 69 CH	21-69 CH	2-4 CH 5-12 CH 21-69 CH
FREQUENCY RANGE ..... VHF LOW ..... VHF HIGH ..... UHF	48,25-112,25 MHz 119,25-294,25MHz 471,25-855,25 MHz		48,25-112,25 MHz 119,25-294,25MHz 471,25-855,25 MHz		471,25-855,25 MHz	48,25-62,25 MHz 175,25-224,25 MHz 471,25-855,25 MHz
VISION/SOUND SEPARATION	5,5 MHz		5,5 MHz		6,0 MHz	5,5 MHz
IF FREQUENCY ..... VIDEO ..... SOUND ..... CHROMA	38,9 MHz 33,4 MHz		38,9 MHz 33,4 MHz		39,5 MHz 33,5 MHz 35,07 MHz	38,9 MHz 33,4 MHz 37,13 MHz
SENSITIVITY..... VHF LOW (AT 30 dB S/N) ..... VHF HIGH ..... VHF HIGH ..... UHF	47 dBuV 47 dBuV 50 dBuV		47 dBuV 47 dBuV 50 dBuV		 80 uV	32 uV 56 uV 80 uV
SCANNING..... LINES ..... HORIZONTAL ..... VERTICAL	625 LINES 15 625 Hz 50 Hz		625 LINES 15 625 Hz 50 Hz		625 LINES 15 625 Hz 50 Hz	625 LINES 15 625 Hz 50 Hz
C R T 14"	Diagonal 14" (35,5 cm) - Neck Diameter 22,5 MM - Deflection angle 90°					
C R T 20" & 21"	Neck Diameter 29,1" - Deflection angle 90°					
C R T 25" & 28"	Neck Diameter 29,1" - Deflection angle 110°					
ANTENNAL EXTERNAL : INPEDANCE	75 Ohms					
POWER CONSUMPTION FOR 14" FOR 20" & 21" FOR 25" & 28"	60 Watts 70 Watts 120 Watts					
SPEAKER FOR 14" FOR 20" & 21" FOR 25" & 28"	16 Ohms 1 W - ø 70 ou 2 x 8 Ohms 1 W - ø 70 2 x 8 Ohms 3 W - 70 x 105 ou 2 x 8 Ohms 3 W - ø 100 2 x 16 Ohms 4 W - 70 x 105					

VIF ALIGNMENT

A. PREPARATION STEP (See Fig. 1)

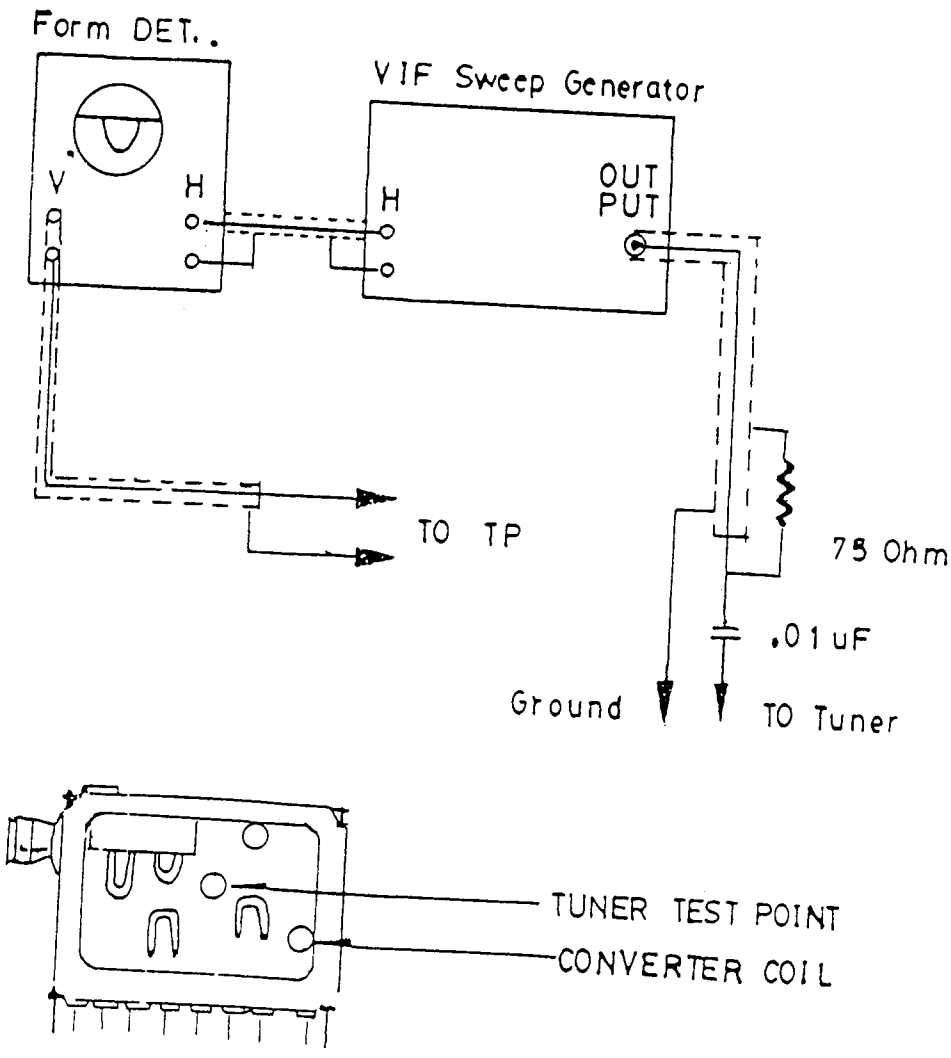
1 – Connect AGC bias boltage to TP101., the DC supply shoulb be turned off this time.

2 – Connect 14V B+ bias voltage to D404 (-) and groud.

3 – Connect sweep generator to tuner test point and ground.

4 – Connect waveform detector to TP105 and groud.

Fig. 1



B. TANK COIL ALIGNMENT STEP (See Fig. 2)

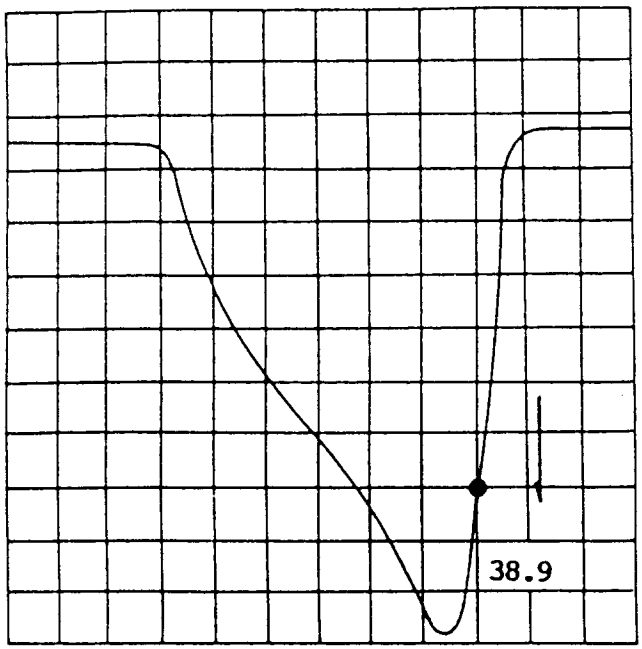
1 – Calibate the division o9f waveform detector equal to 100 mv per div.

2 – The output of sweep generator should be 50 dB.

3 – Connect TP001 to ground.

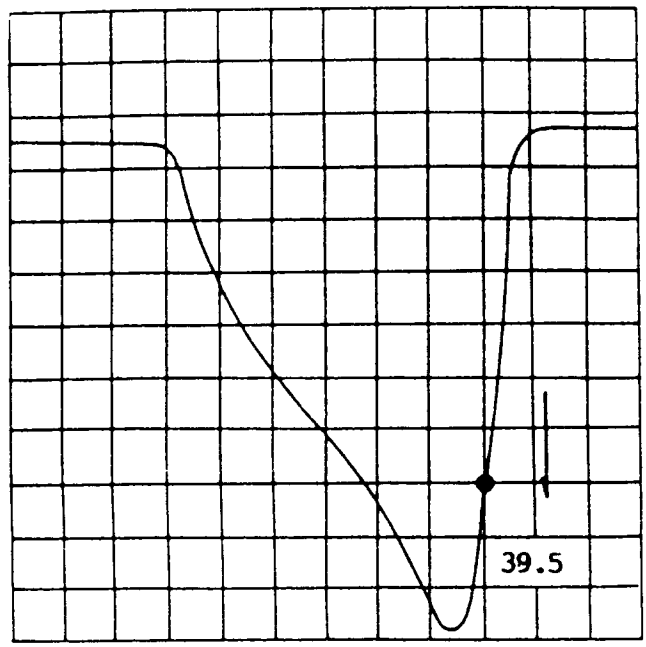
4 – Adjust AGC bias until the output waveform equal to 1V p.p.

Fig. 2



5 – Turn T101 until the marker 38,9 MHz fails to the lowest point as Fig. 2.

For : PAL B/G FTZ
PAL SECAM B/G FTZ
PAL B/G



5 – Turn T101 until the marker 39,5 MHz fails to the lowest point as Fig. 2.

For : PAL I (UK)

C. VIF ALIGNMENT

1 – Connect 100 ohm resistor between TP103 and TP104.

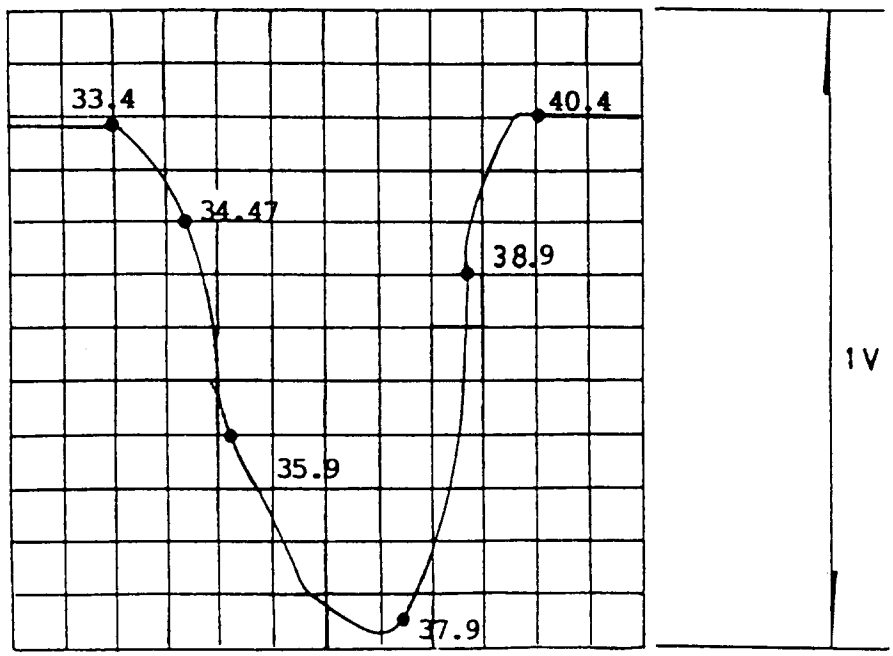
2 – Adjust T104 until obtain the maximum waveform amplitude (If provided).

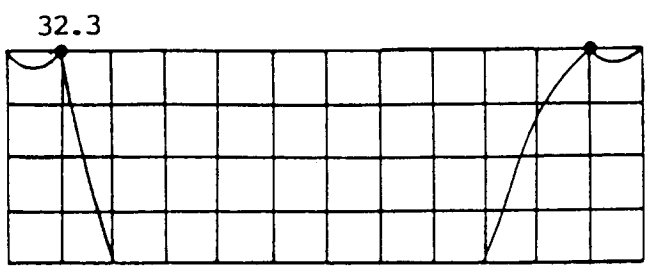
3 – Adjust AGC bias, and maintain the waveform achieve 1V pp.

4 – Increase the output level of sweep generator in 10 dB adjust L101 to obtain the waveform as in Fig. 3.

5 – Set the sweet generator in 20 dB and adjust tuner convertor coil to obtain the waveform as Fig. 4.

Fig. 3





For : PAL B/G FTZ
PAL SECAM B/G FTZ

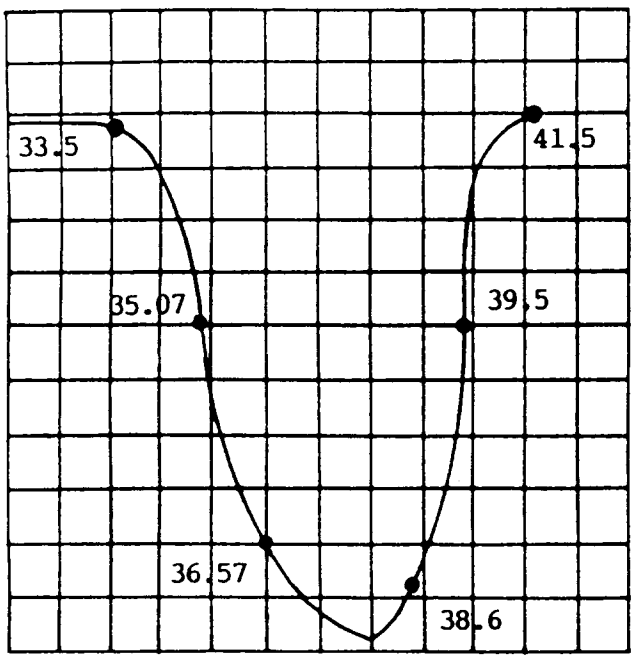
C. VIF ALIGNMENT

1 – Connect 100 ohm resistor between TP103 and TP104.

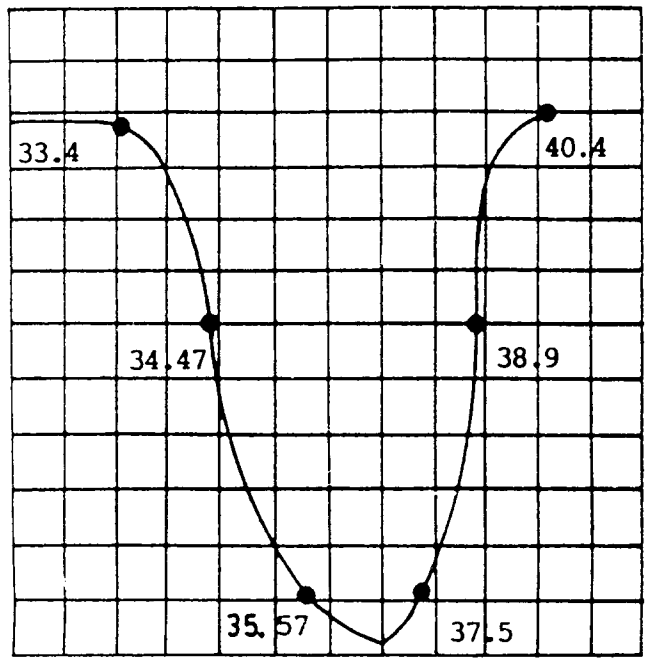
2 – Adjust T104 until obtain the maximum waveform amplitude (If provided).

3 – Adjust AGC bias, and maintain the waveform achieve 1V pp.

Fig. 3



For : PAL I (UK)



For : PAL B/G

D. AFC ALIGNMENT

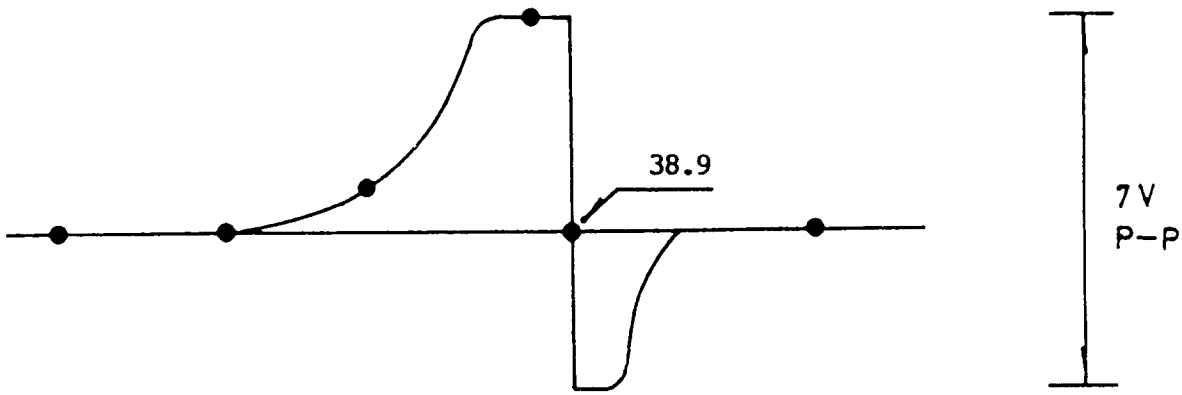
1 – Remove the 100 ohm resistor from TP103 and TP104.

2 – Connect the waveform detector to TP102. The output of sweep generator should be –40dB.

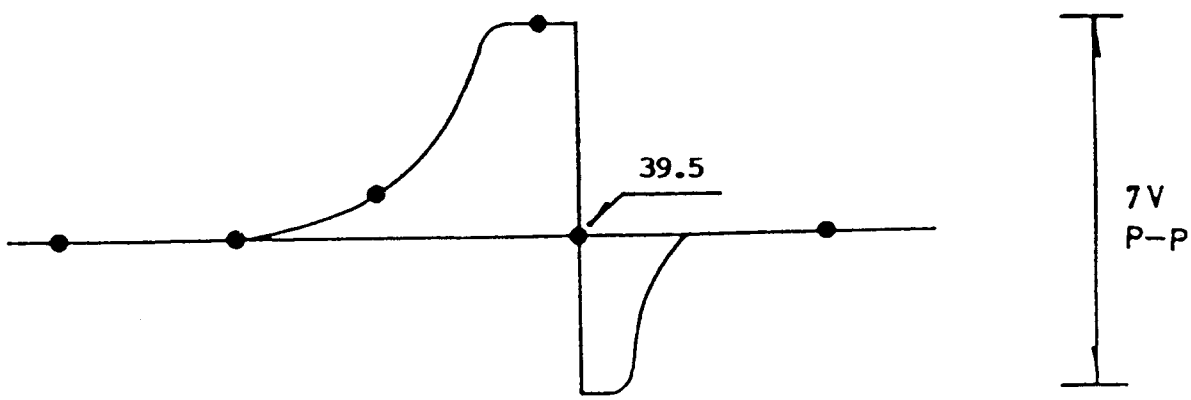
3 – Adjust AGC bias to 5V.

4 – Adjust T103 to obtain waveform as Fig. 4.

Fig. 4



For : PAL B/G FTZ
PAL SECAM B/G FTZ
PAL B/G



For : PAL I (U/K)

E. SIF ALIGNMENT

1 – Connect the sweep generator to TP105.

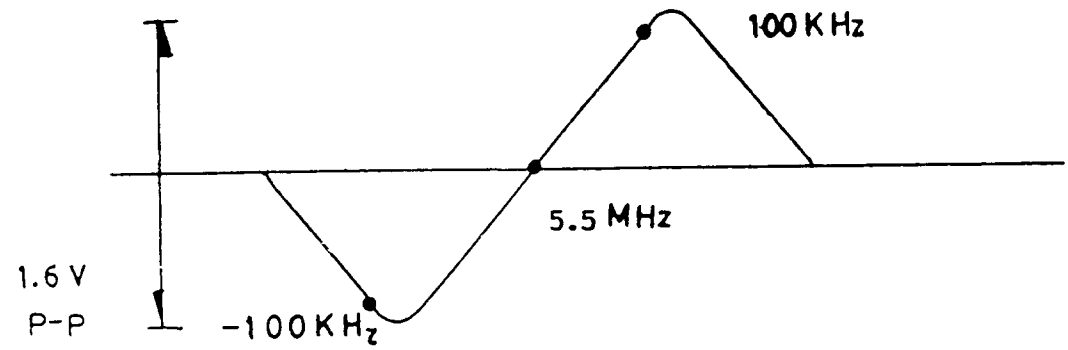
2 – Connect waveform detect to TP106.

3 – The output of sweep generator should be –50dB.

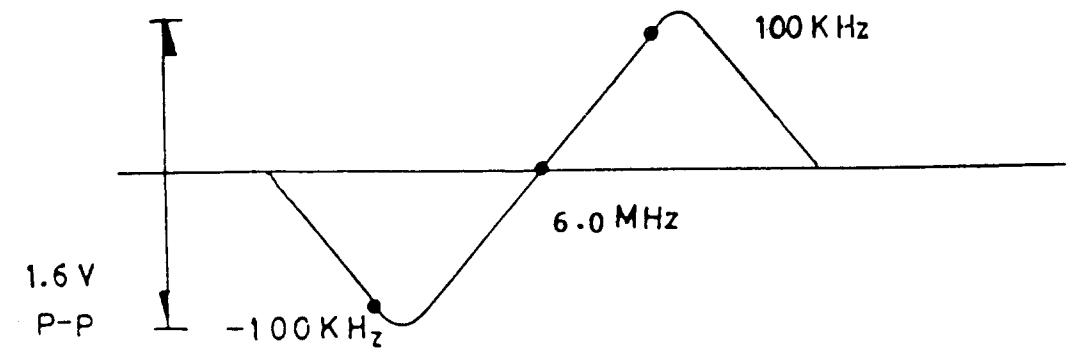
4 – Adjust T105 to obtain the waveform as Fig. 5.

Remark connect the TP001 and GND.

Fig. 5



For : PAL B/G FTZ
PAL SECAM B/G FTZ
PAL B/G



For : PAL I (UK)

B+ ADJUSTMENT

1 – Connect a digital volt meter to TPB+ and ground.
2 – Set brightness, contrast and colour to minimum.
3 – Adjust VR 901 and obtain a reading of 114V.

HORIZONTAL CIRCUIT ADJUSTMENT

1 – Receive monoscope pattern input signal 80dBuV.
2 – Connect terminal TP305 and the earth with the short jumper wire.
3 – Adjust VR304 to obtain picture running at center.
4 – Adjust VR303 to obtain picture at center.

VERTICAL CIRCUIT ADJUSTMENT

1 – Receive the monoscope pattern.
2 – Adjust V-size (VR301) to obtain a normal picture.

WHITE BALANCE ALIGNMENT STEP

(deguss the picture by dequassing coil if necessary)

1 – Turn the brightness, contrast and picture control to minimum value.
2 – Turn VR501, 503, 505 to middle position. Turn VR502, 504 to minimum position.
3 – Turn VR306 to middle position.
4 – Receive a black and white pattern.
5 – Set S301 to service position.
6 – Turn off the screen voltage.
7 – Turn on the screen control volume on flyback transformer, and a horizontal red line appears.
8 – Adjust VR502 to obtain a yellow line.
9 – Adjust VR504 to obtain a white line.
10 – Set S301 to normal position.
11 – Adjust VR503, 505 to make the picture uniformly white (9 300°K).

SUB-BRIGHTNESS ALIGNMENT

1 – Receive a colour bar pattern.
2 – Turn the brightness, contrast and colour to minimum.
3 – Adjust VR306 until the brightest bar can just be seen.

FOCUS ALIGNMENT

1 – Set the brightness and contrast to middle position.
2 – Receive a monoscope pattern.
3 – Adjust focus control to obtain sharpest picture.

AGC ALIGNEMENT

1 – Receive CH69 (UHF) and input field strength in 63dB ±3dB input.
2 – Adjust VR101 to the point where noise is disappeared.

For : PAL I (UK)

B+ ADJUSTMENT

1 – Connect a digital volt meter to TPB+ and ground.
2 – Set brightness, contrast and colour to minimum.
3 – Adjust VR 901 and obtain a reading of 112V.

HORIZONTAL CIRCUIT ADJUSTMENT

1 – Receive monoscope pattern input signal 80dBuV.
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3 – Adjust VR304 to obtain picture running at center.
4 – Adjust VR303 to obtain picture at center.

VERTICAL CIRCUIT ADJUSTMENT

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2 – Adjust V-size (VR301) to obtain a normal picture.

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(deguss the picture by dequassing coil if necessary)

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4 – Receive a black and white pattern.
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6 – Turn off the screen voltage.
7 – Turn on the screen control volume on flyback transformer, and a horizontal red line appears.
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1 – Set the brightness and contrast to middle position.
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3 – Adjust focus control to obtain sharpest picture.

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2 – Adjust VR101 to the point where noise is disappeared.

For : PAL B/G FTZ – PAL SECAM B/G FTZ – PAL B/G

PAL COLOUR ALIGNMENT

1 – Receive philips pattern.

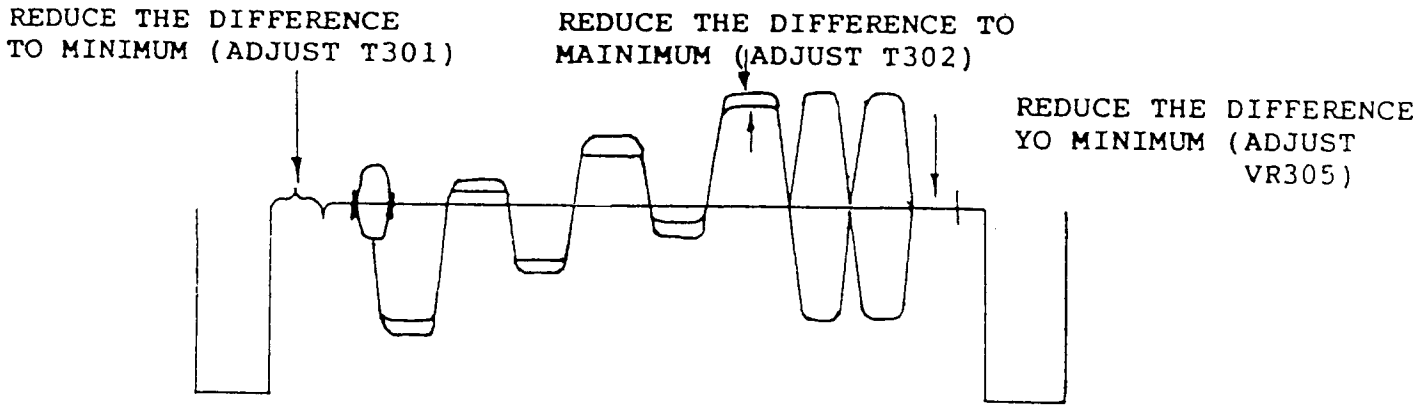
2 – Connect oscilloscope to 22 pin of IC801.

3 – Set the service switch (Z301) to service position.

4 – Set color control to maximum position.

5 – Adjust T301, 302 and VR305 to obtain the waveform as Fig. 6.

Fig. 6


REDUCE THE DIFFERENCE TO MINIMUM (ADJUST T301)
REDUCE THE DIFFERENCE TO MAINIMUM (ADJUST T302)
REDUCE THE DIFFERENCE YO MINIMUM (ADJUST VR305)

COLOR SYNC. ADJUSTMENT

1 – Receive philips pattern and warm up for five minutes.

2 – Connect terminal TP302 and the earth with the short Jumper wire.

3 – Connect the TP306 and TP301 with 10K OHM resistor so that the color killer turns off.

4 – Then the color stripes appear on the screen when the adjustment in inconnect. Adjust the colon sync (CT301) so that the PHILIPS pattern stands still.

5 – Remove the 10K ohm resistor and jumper wire.

For : PAL B/G FTZ – PAL SECAM B/G FTZ

PAL COLOUR ALIGNMENT

1 – Receive philips pattern.

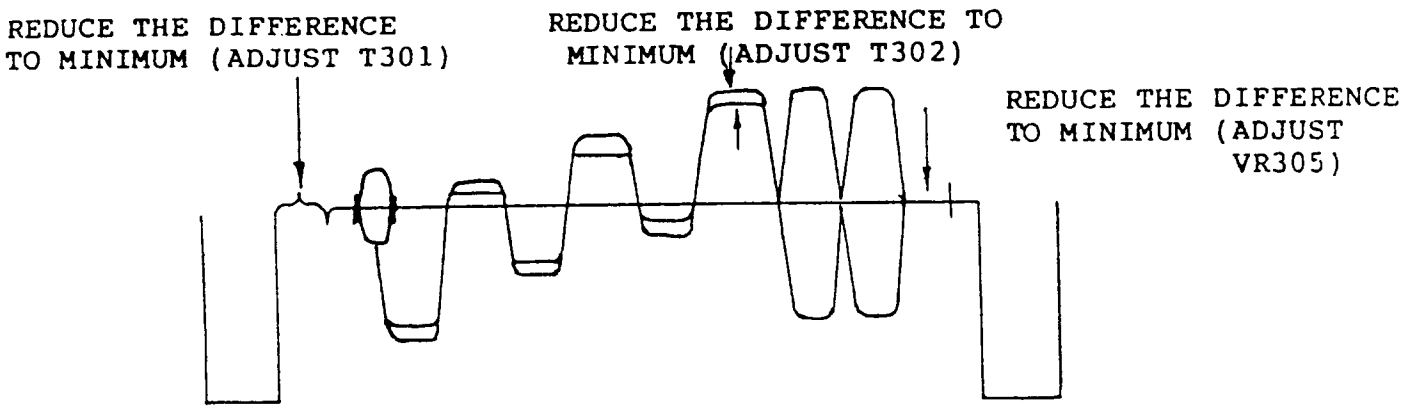
2 – Connect oscilloscope to TP303.

3 – Set the service switch (Z301) to service position.

4 – Set color control to maximum position.

5 – Adjust T301, 302 and VR305 to obtain the waveform as Fig. 6.

Fig. 6


REDUCE THE DIFFERENCE TO MINIMUM (ADJUST T301)
REDUCE THE DIFFERENCE TO MINIMUM (ADJUST T302)
REDUCE THE DIFFERENCE TO MINIMUM (ADJUST VR305)

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5 – Remove the 10K ohm resistor and jumper wire.

For : PAL I (UK) – PAL B/G

SECAM COLOUR ALIGNMENT

A. BELL FILTER ALIGNMENT

1 – Receive secam color bar pattern.

2 – Connect oscilloscope to TP804.

3 – Turn T804 to obtain waveform as Fig. 7.

Fig. 7

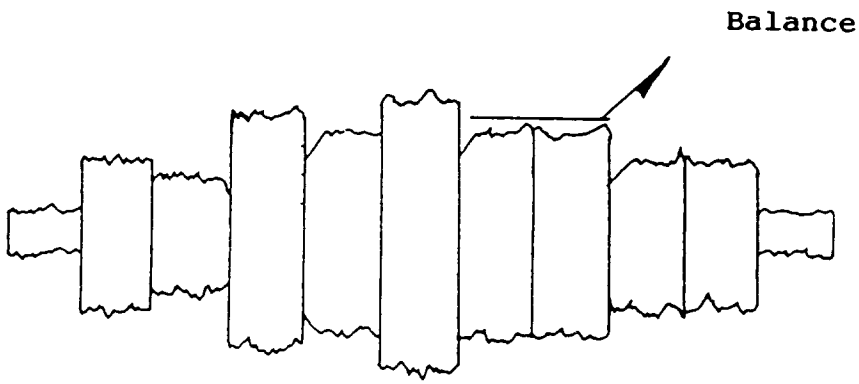


Fig.7

C. SECAM COLOUR KILLER ALIGNMENT

1 – Receive secam color bar signal.

2 – Connect a DC digital meter to IC801 pin 26.

3 – Turn T803 to obtain a maximum voltage.

For : PAL SECAM B/G FTZ

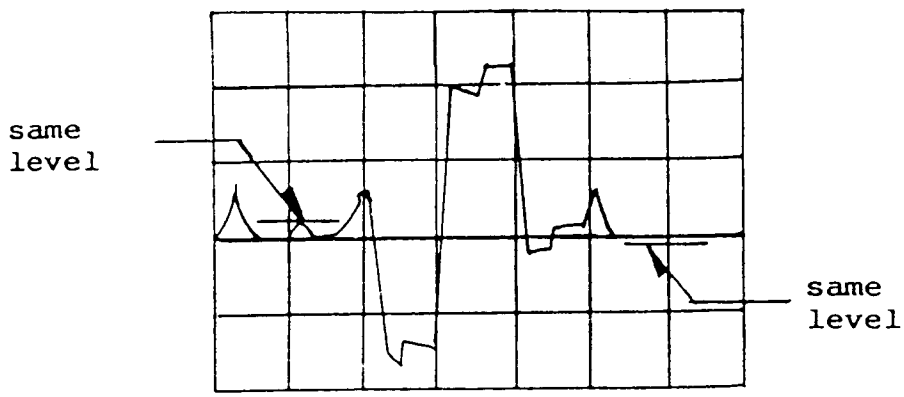
B. DISCRIMINATOR ALIGNMENT

1 – Receive secam color bar signal.

2 – Connect oscilloscope to TP803.

3 – Turn T801 to obtain the Fig. 8.

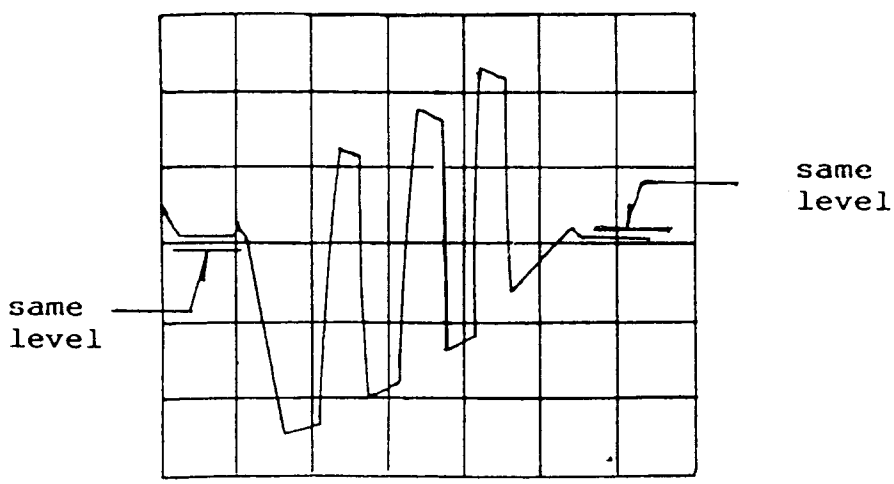
Fig. 8



4 – Connect the osilloscope to TP802.

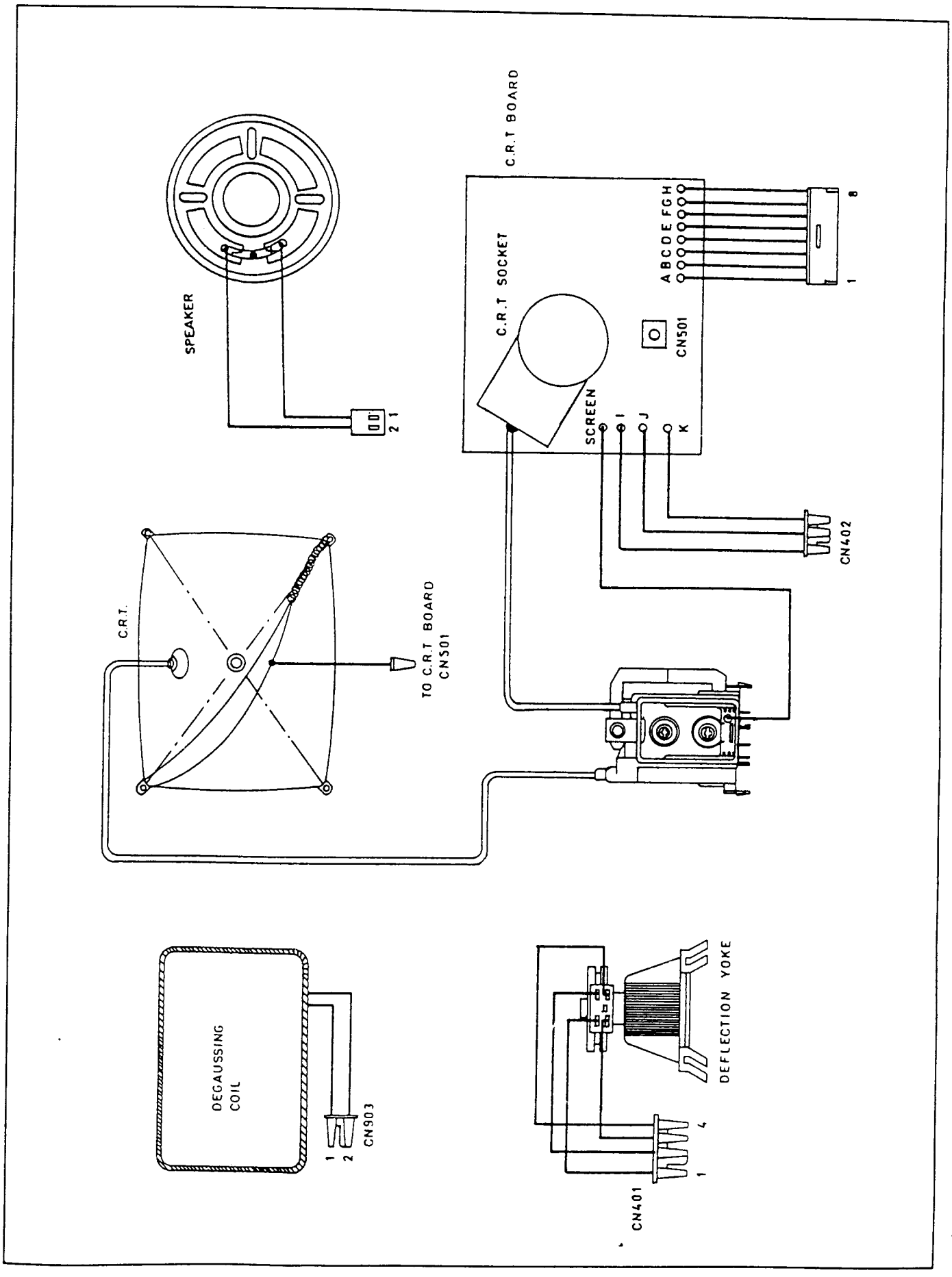
5 – Turn T802 to obtain the Fig. 9.

Fig. 9



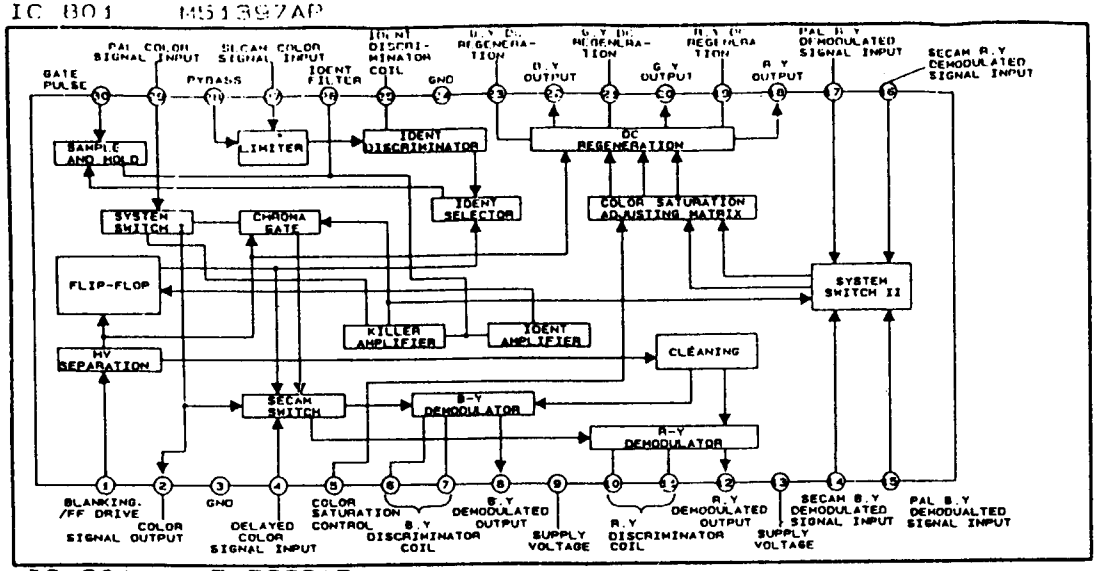
For : PAL SECAM B/G FTZ

WIRING DIAGRAM

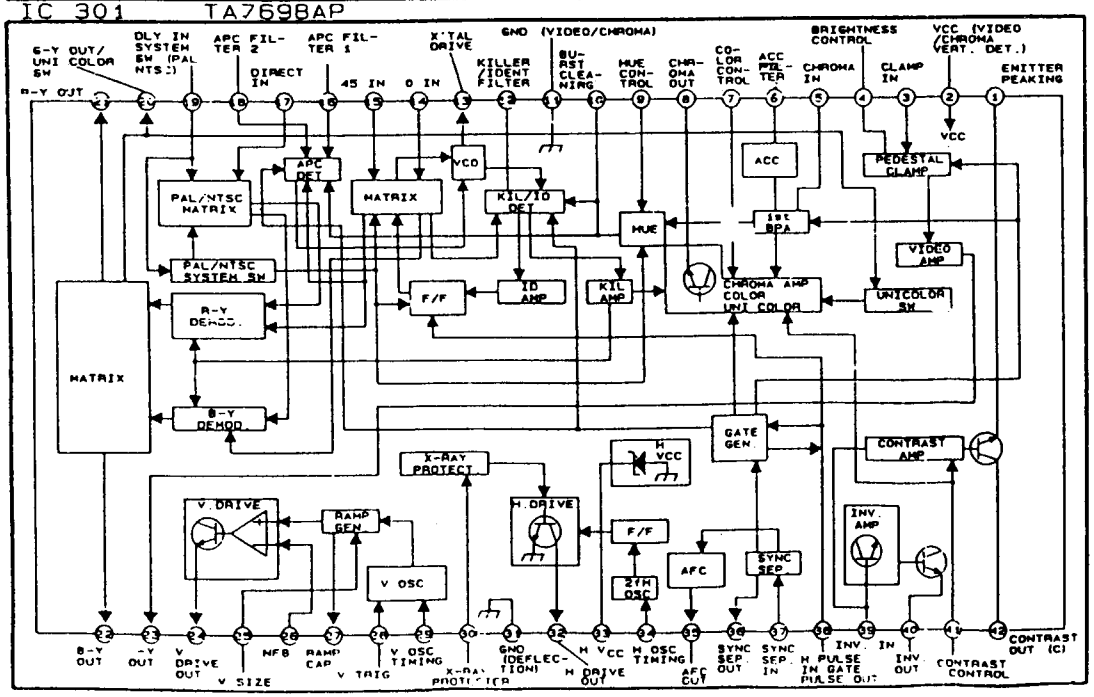


For : PAL I (UK) 14" ONLY

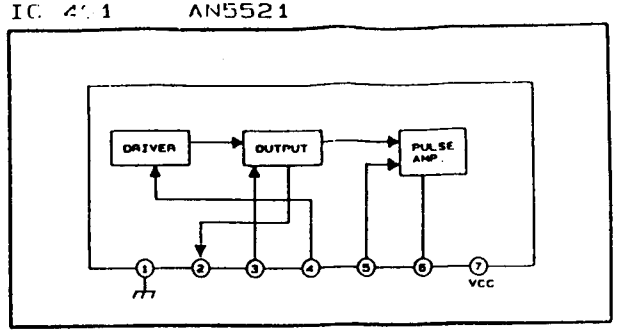
IC 801 M51397AP



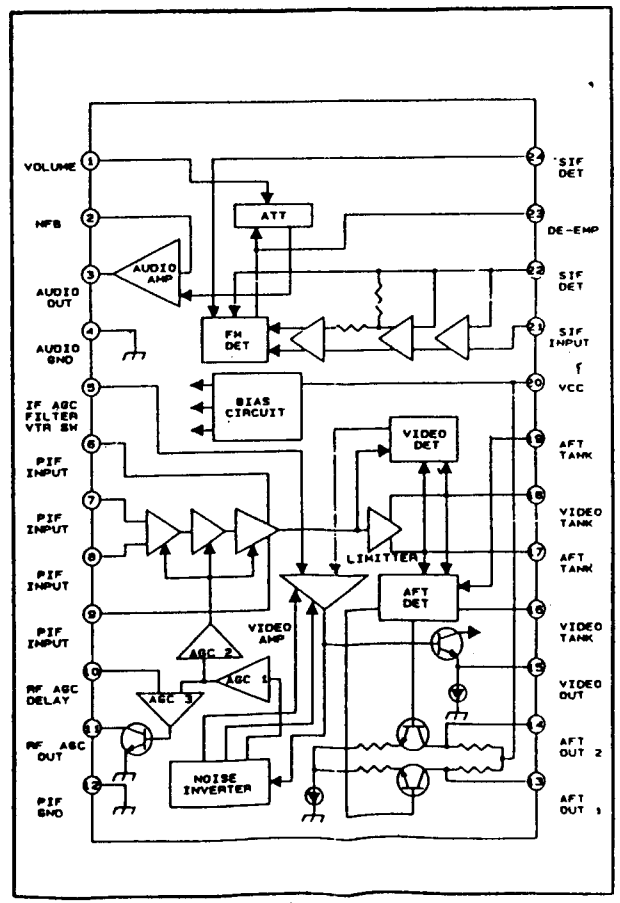
IC 301 TA7698AP

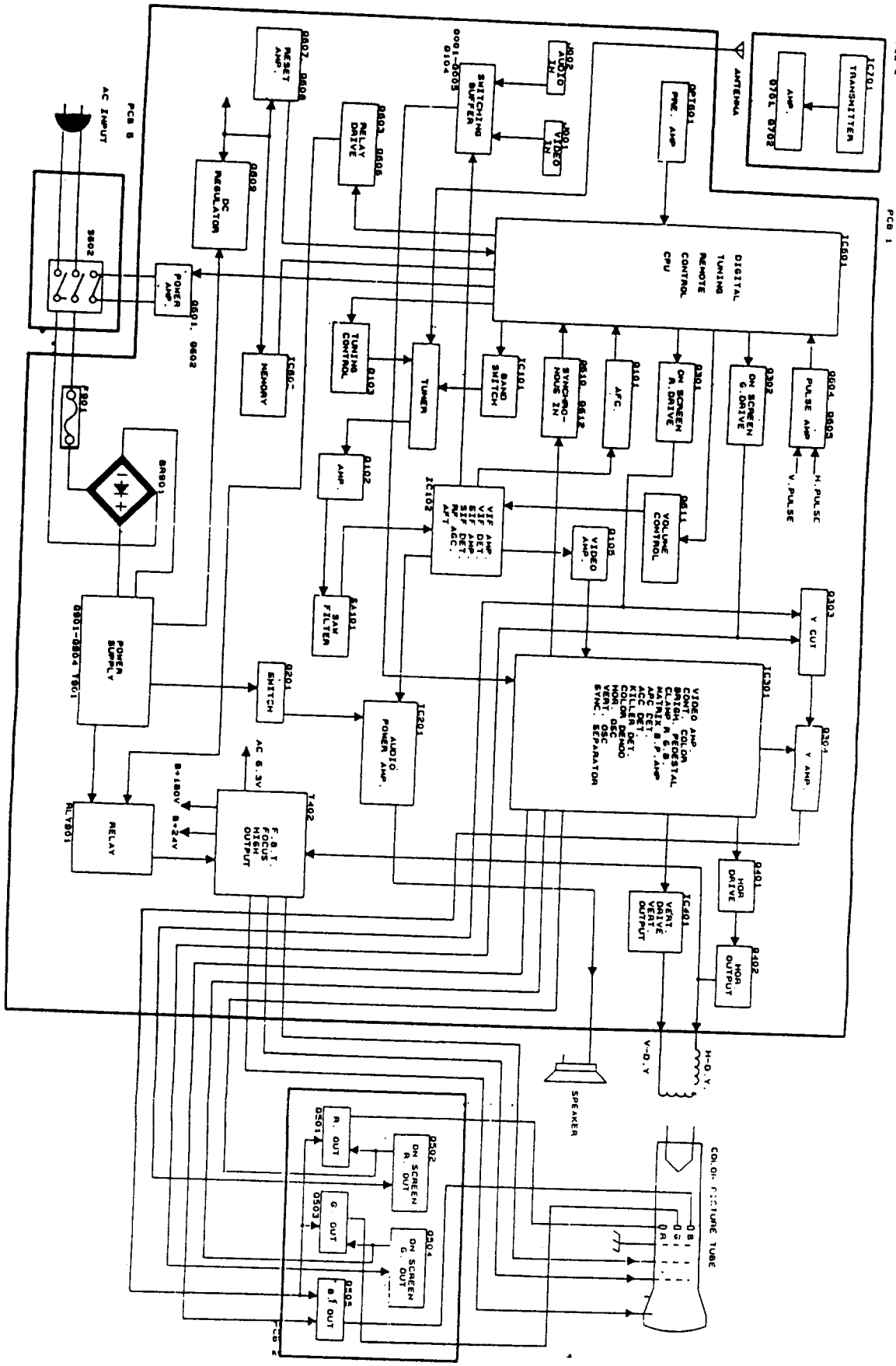


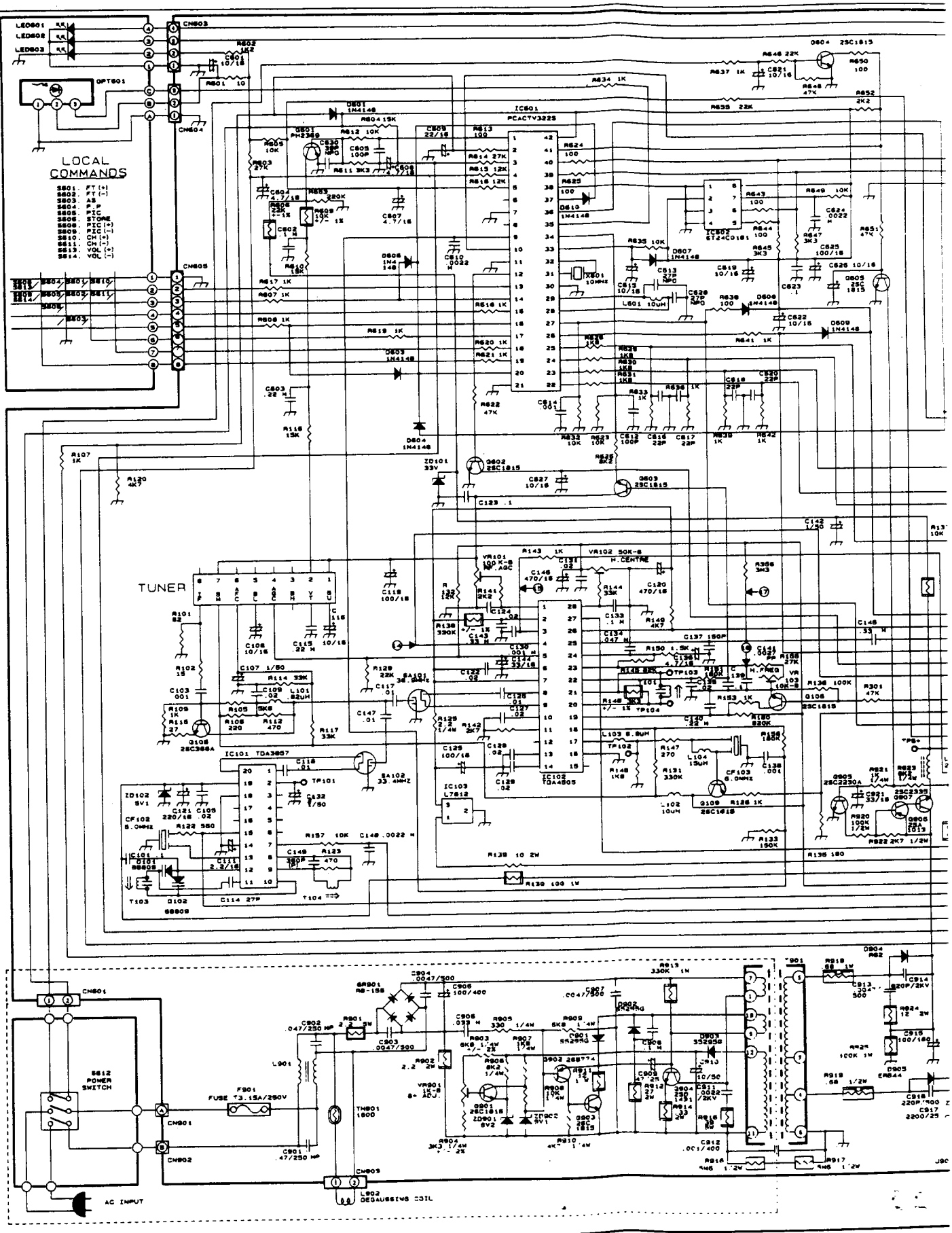
IC 4[illegible]1 AN5521

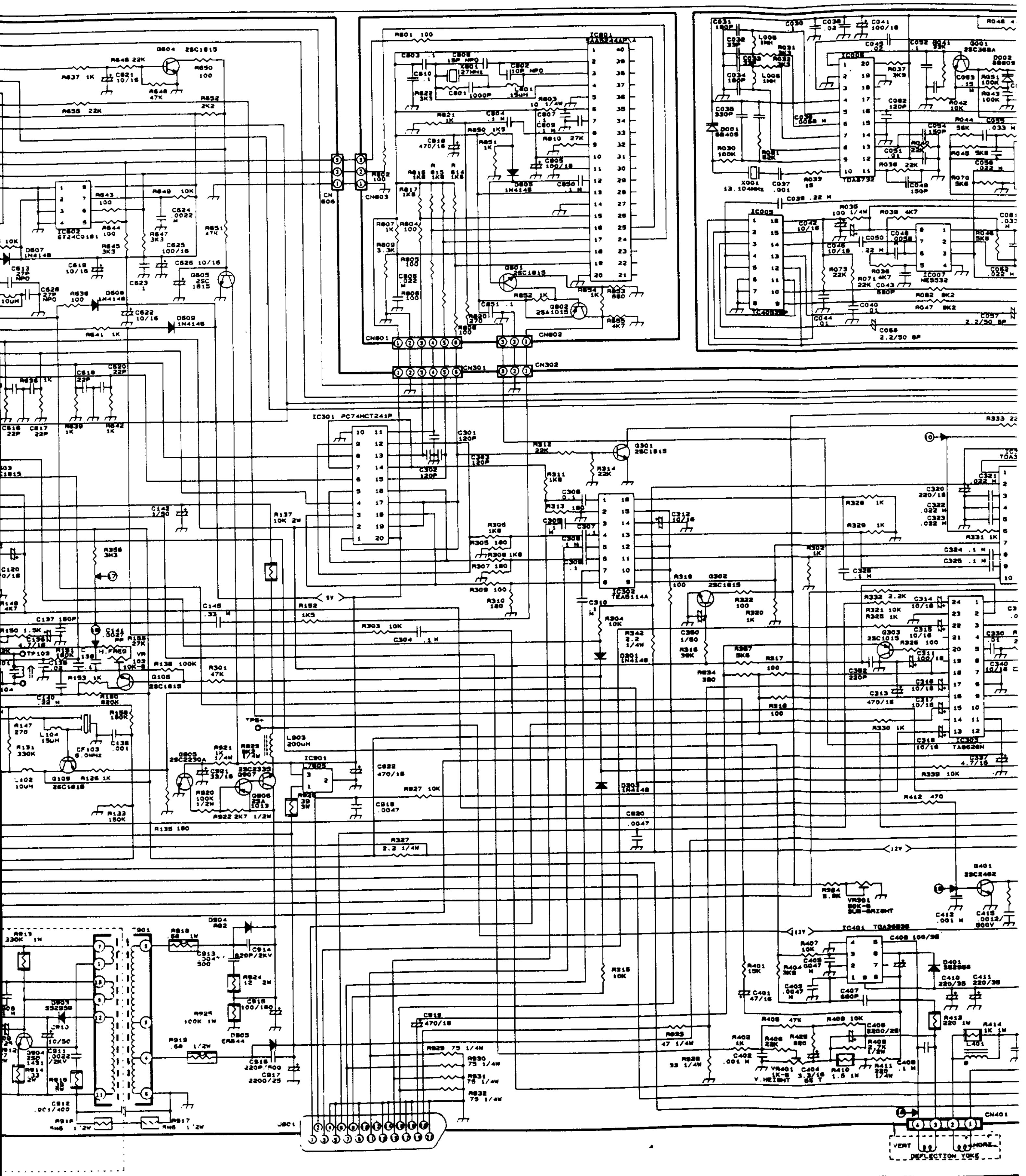


IC102 TA7680AP

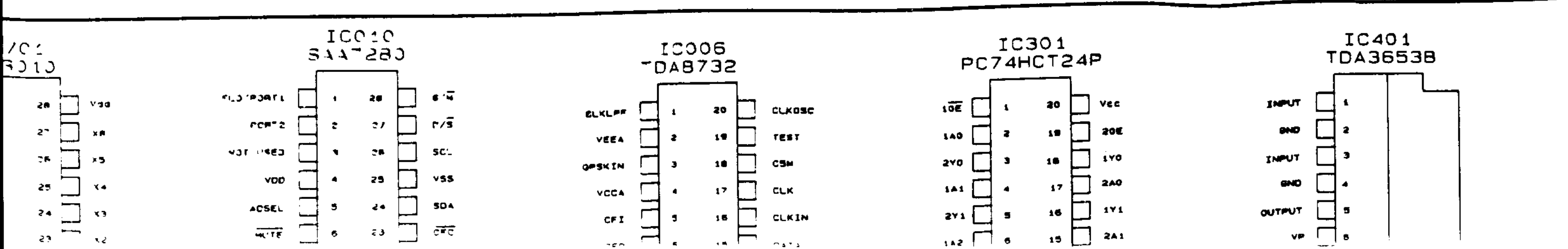



PCB 4
IC701 TRANSMITTER
AMP. Q701, Q702
ANTENNA
PCB 1
IC601 DIGITAL TUNING REMOTE CONTROL CPU
PC1601 PRE. AMP
SWITCHING BUFFER Q103-Q104
AUDIO IN J602
VIDEO IN J601
RESET AMP. Q607, Q608
RELAY DRIVE Q605, Q606
DC REGULATOR Q602
POWER AMP. Q601, Q602
S602
AC INPUT
PCB 5
F601
SR601
MEMORY IC603
TUNING CONTROL Q103
TUNER
BAND SWITCH IC101
SYNCHRO-NOUS IN Q610, Q612
AFC Q101
ON SCREEN R. DRIVE Q301
ON SCREEN G. DRIVE Q302
PULSE AMP Q603, Q604
H. PULSE
V. PULSE
AMP. Q102
IC102 VIF AMP, VIF DET, SIF AMP, SIF DET, RF AGC, AFT
VOLUME CONTROL Q611
VIDEO AMP. Q105
SAW FILTER Q101
Y CUT Q303
IC301 VIDEO AMP, CONT, COLOR, BRIGH, PEDESTAL CLAMP, R, G, B, MATRIX, B.P.AMP, ABL, ACC DET, KILLER DET, COLOR DEMOD, HOR. SYNC. SEP, VERT. SEP, SEPARATOR
Y AMP. Q301
POWER SUPPLY Q801-Q804, VR01
SWITCH Q201
IC201 AUDIO POWER AMP.
HOR. DRIVE Q401
HOR. OUTPUT Q402
IC401 VERT. DRIVE, VERT. OUTPUT
RELAY RL701
AC 6.3V
B+180V
B+24V
T402 F.B.T. FOCUS HIGH OUTPUT
SPEAKER
V-D.Y.
H-D.Y.
COLOR PICTURE TUBE
R. OUT Q501
ON SCREEN R. OUT Q502
G. OUT Q503
ON SCREEN G. OUT Q504
B. OUT Q505
PCB 2

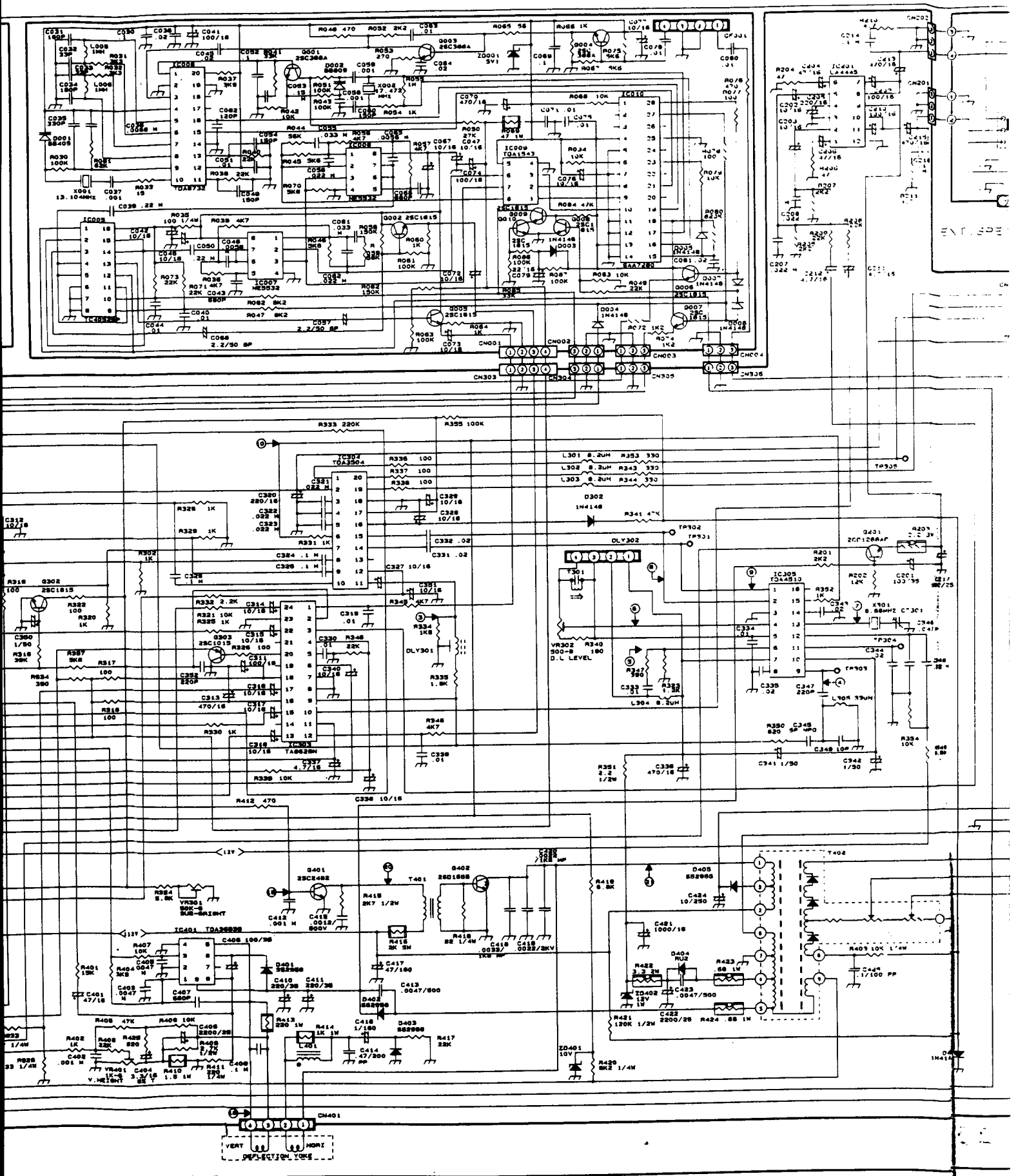

LOCAL
COMMANDS
TUNER
IC801 SAA5244AP/A
IC601 PCACTV322S
IC101 TDA3857
IC102 TDA4505
IC103 L7812
POWER SWITCH
AC INPUT
DEGAUSSING COIL

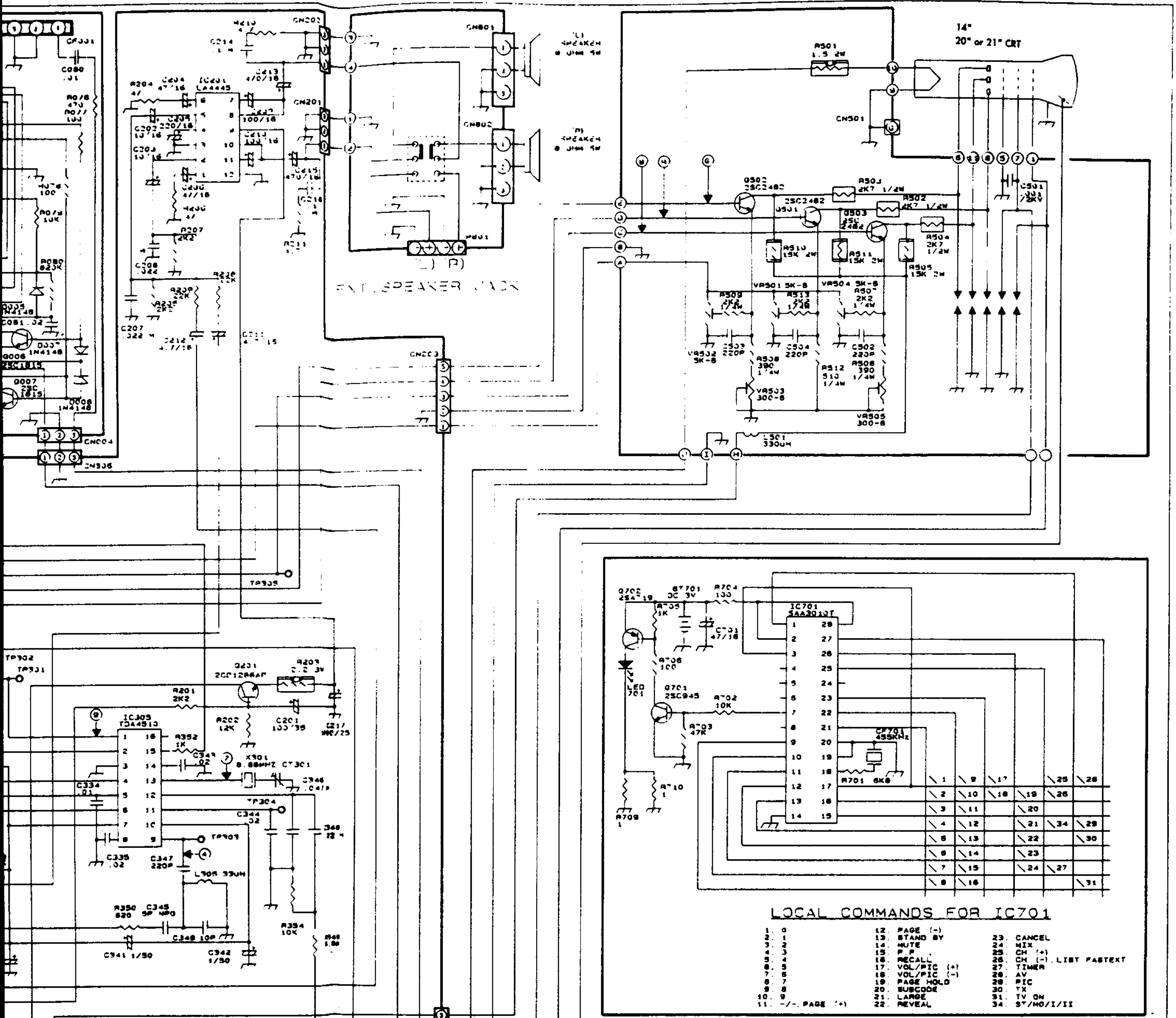


IC801 SAA5244AP
IC802 ST24C01B1
Q804 2SC1815
Q805 2SC1815
Q801 2SC1815
Q802 2SA1015
X801 27MHz
CN606
CN803
CN801
CN802
CN301
CN302
IC006 TDA8732
IC005 TC4052BP
IC007 NE5532
Q001 2SC388A
D001 BB405
X001 13.104MHz
IC301 PC74HCT241P
IC302 TEA5114A
IC303 TA8628N
Q301 2SC1815
Q302 2SC1815
Q303 2SC1015
Q106 2SC1815
Q105 2SC1815
CF103 6.0MHz
H.FREQ
VR103 10K-B
TP103
TP6+
L903 200uH
IC901 7805
Q905 2SC2230A
Q907 2SC2335
Q906 2SA1013
T901
D904 RG2
D905 ERB44
D903 SS2950
Q904 2SD1431
J901
<12V>
<5V>
Q401 2SC2482
VR301 50K-B SUB-BRIGHT
IC401 TDA3653B
D401 SS2966
VR401 1K-B V.HEIGHT
CN401
VERT
HORZ.
DEFLECTION YOKE



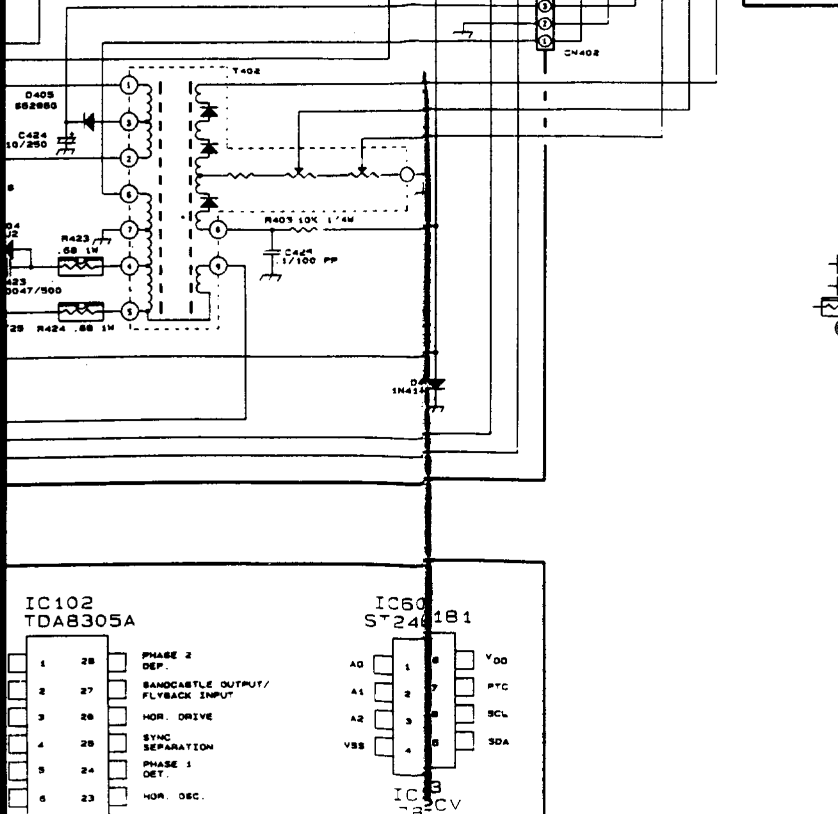
IC010
SAA7280
FLO/PORT1 1 28 6/M
PORT2 2 27 P/S
NOT USED 3 26 SCL
VDD 4 25 VSS
ADSEL 5 24 SDA
MUTE 6 23 CFC
IC006
TDA8732
CLKLPF 1 20 CLKOSC
VEEA 2 19 TEST
QPSKIN 3 18 CSM
VCCA 4 17 CLK
CFI 5 16 CLKIN
IC301
PC74HCT24P
1OE 1 20 Vcc
1A0 2 19 2OE
2Y0 3 18 1Y0
1A1 4 17 2A0
2Y1 5 16 1Y1
1A2 6 15 2A1
IC401
TDA3653B
INPUT 1
GND 2
INPUT 3
GND 4
OUTPUT 5
VP 6


IC401
TDA3653B
IC304
TDA3504
IC102
TDA8305A
IC60
ST24C01
IC
BLUE OUTPUT
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
PHASE 2 DEM.
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET.
HOR. OSC.
VERT. DEFLECTION YOKE
HORI



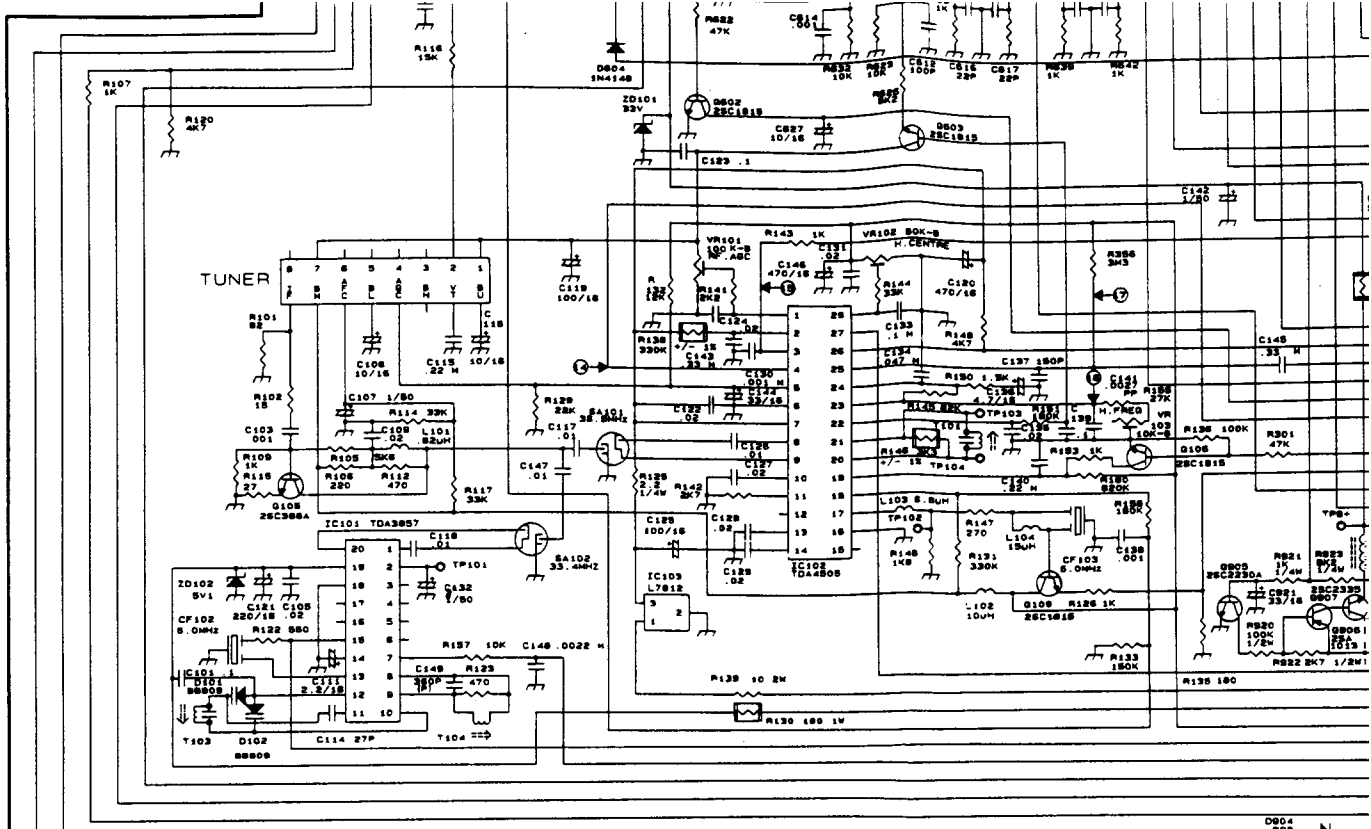
LOCAL COMMANDS FOR IC701

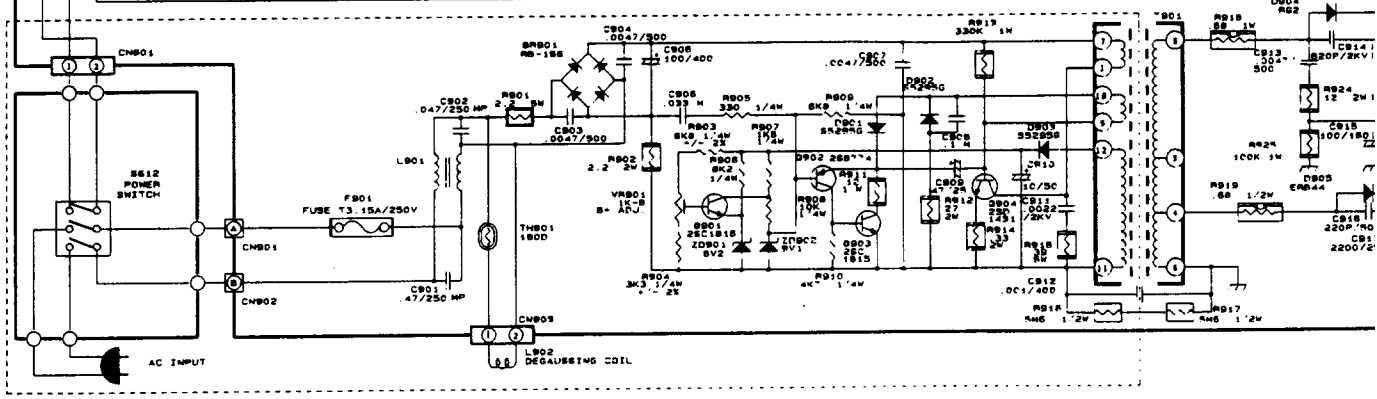
1. 0
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6
8. 7
9. 8
10. 9
11. -/--, PAGE (+)
12. PAGE (-)
13. STAND BY
14. MUTE
15. P.P
16. RECALL
17. VOL/PIC (+)
18. VOL/PIC (-)
19. PAGE HOLD
20. SUBCODE
21. LARGE
22. REVEAL
23. CANCEL
24. MIX
25. CH (+)
26. CH (-), LIST FASTEXT
27. TIMER
28. AV
29. PIC
30. TX
31. TV ON
34. ST/MO/I/II

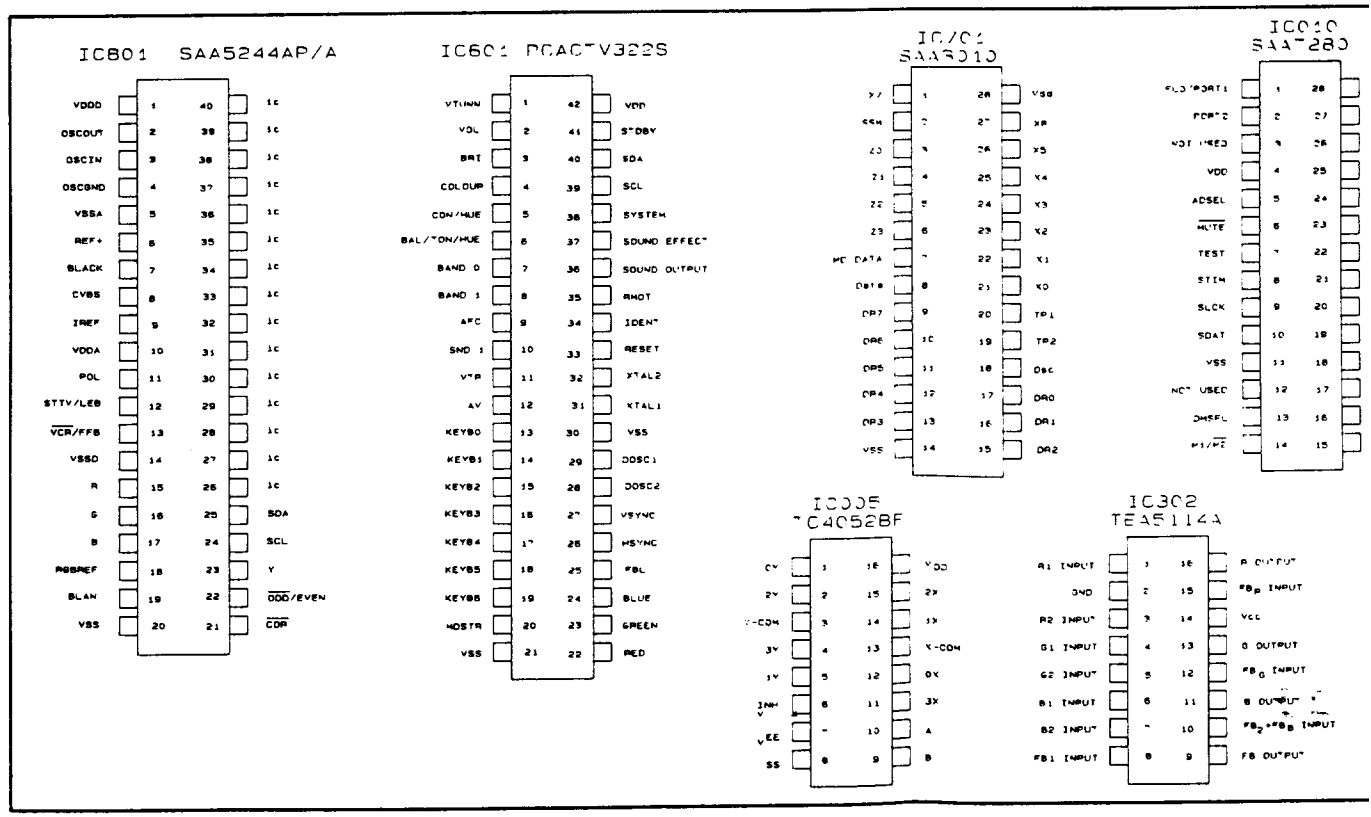


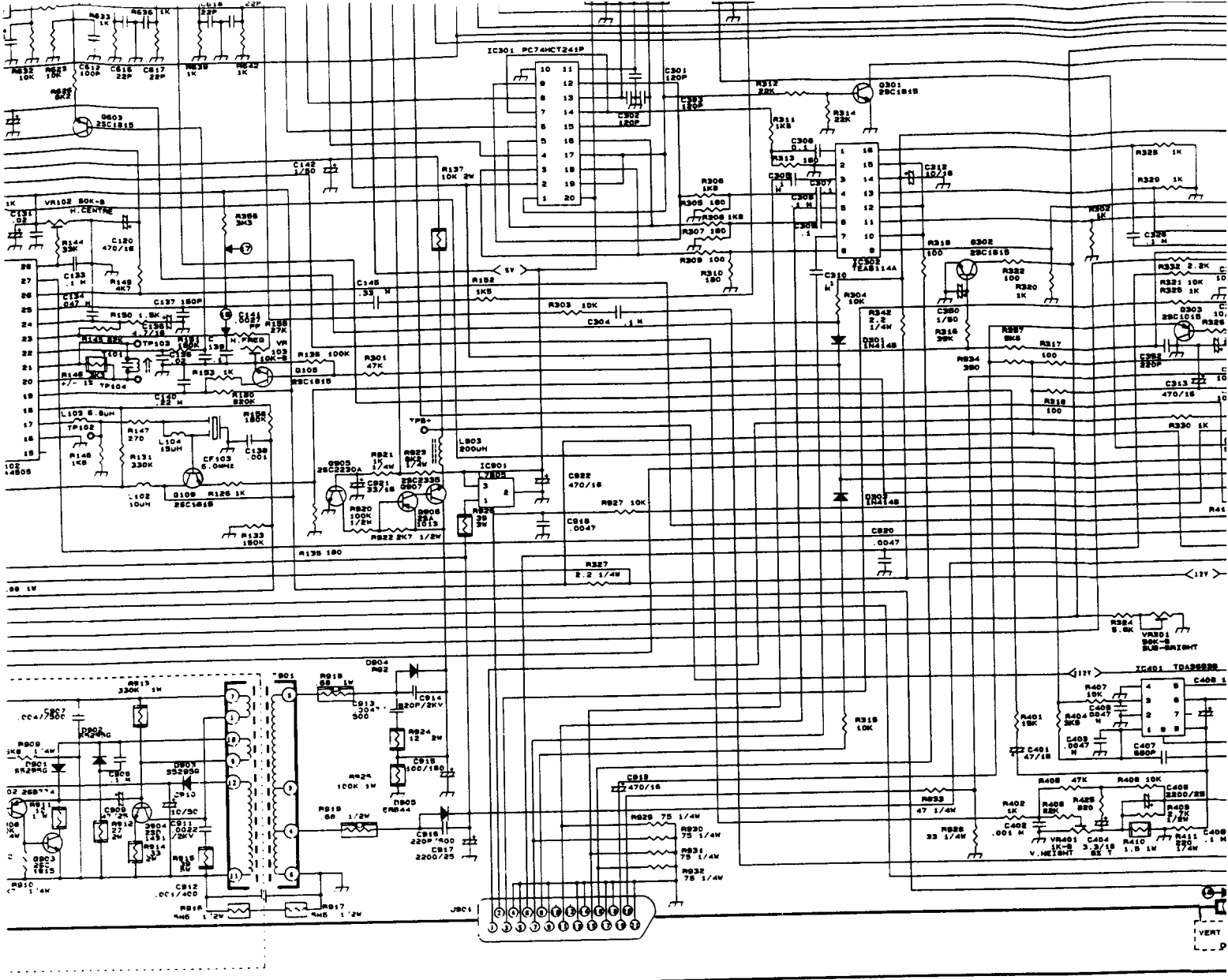
NOTE:

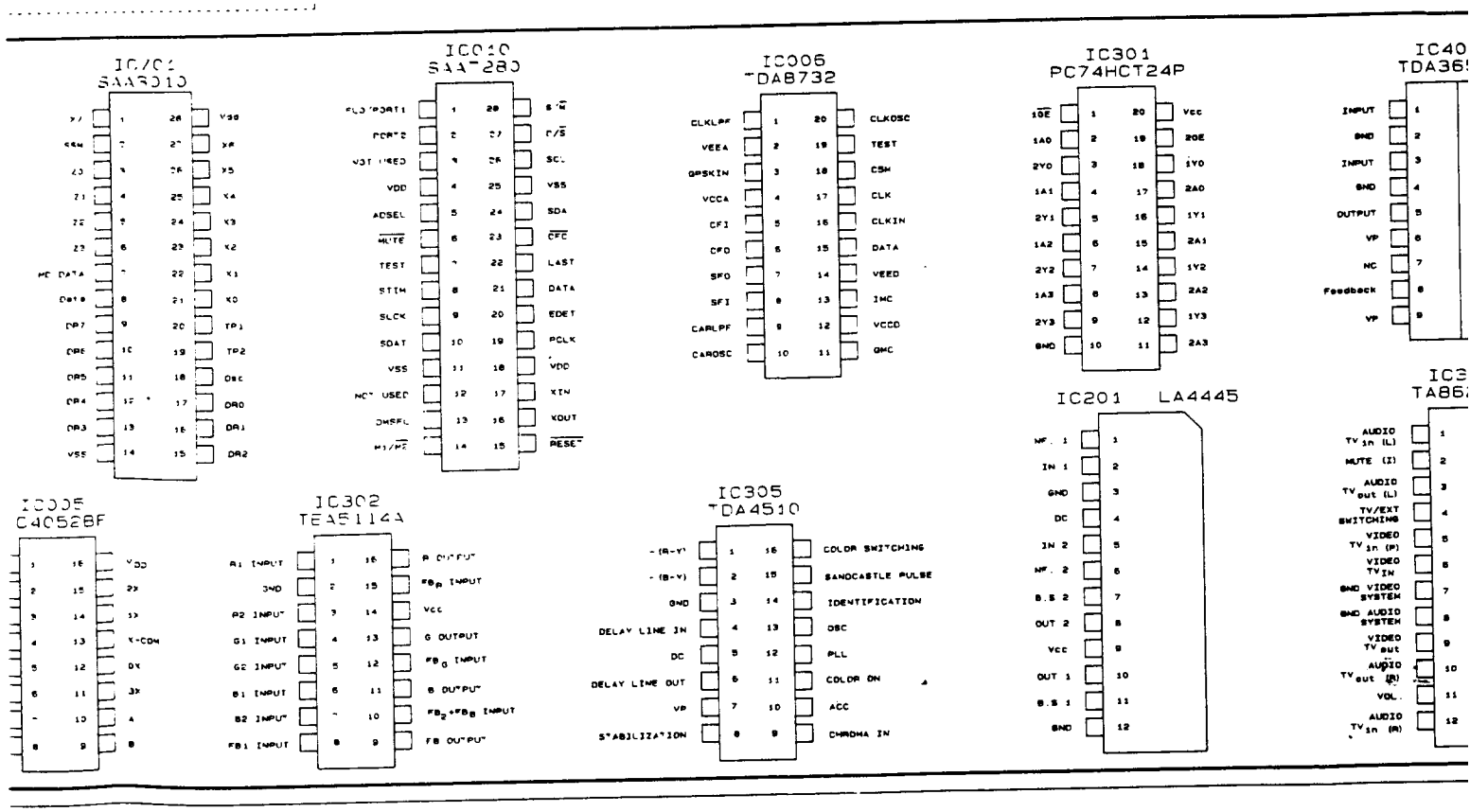
(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED
(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.
ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR
(3) ALL RESISTORS ARE IN OHM 1/16 W UNLESS OTHERWISE NOTED.
(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.
METAL OXIDE RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR
CARBON COMPOSITION RESISTOR
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).
(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.
(8) ON THE SCHEMATIC SHOULD BE REPLAED WITH EXACT MANUFACTURER RECOMMENED PARTS.

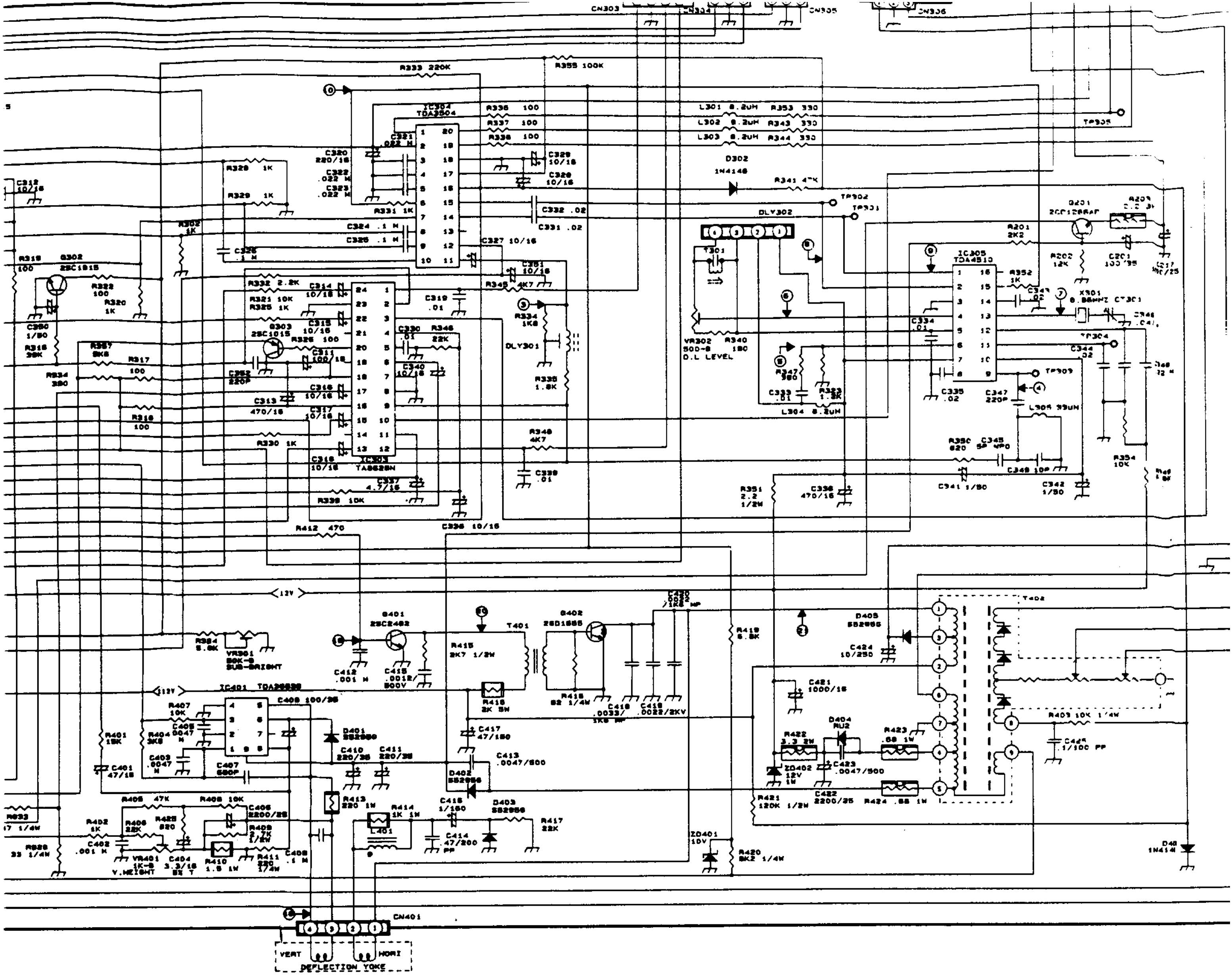

TUNER
IC101 TDA3857
IC102 TDA4505
IC103 L7812
Q108 2SC3858
Q106 2SC1815
Q109 2SC1815
Q102 2SC2330A
Q103 2SC1815
D102 88809
T103
T104
TP101
TP102
TP103
TP104

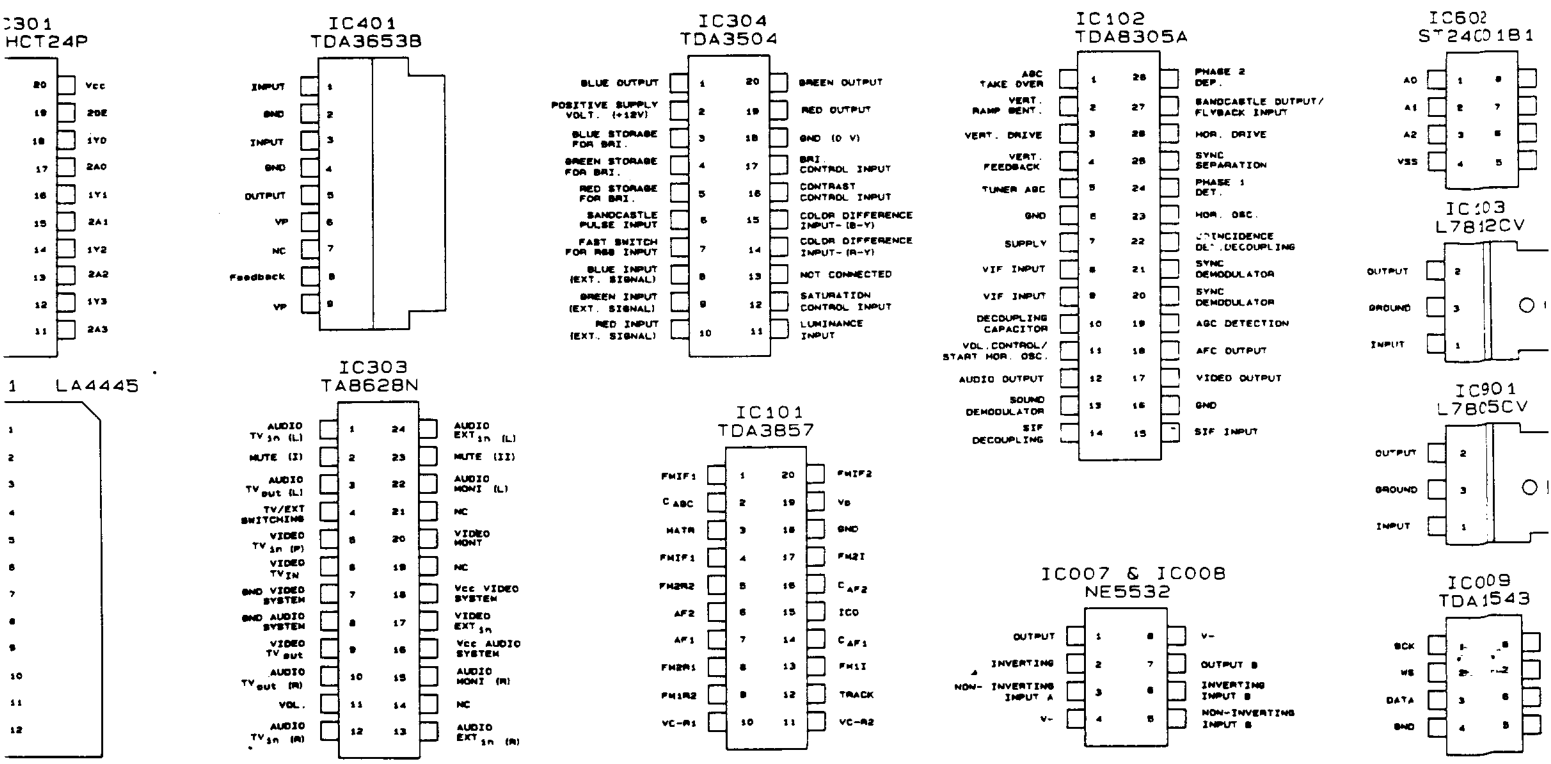

CN801
S612 POWER SWITCH
FB01 FUSE T3.15A/250V
CN802
CN803
AC INPUT
L902 DEGAUSSING COIL
THB01 180D
VR801 1K-B B+ ADJ
L901
BR801 RB-156
D901 552B56
D902 552B56
D903 552B56
D904 RG2
D905 EA844
Q901 2SC1815
Q902 2SB754
Q903 2SD1615
ZD901 8V2
ZD902 8V1
T901

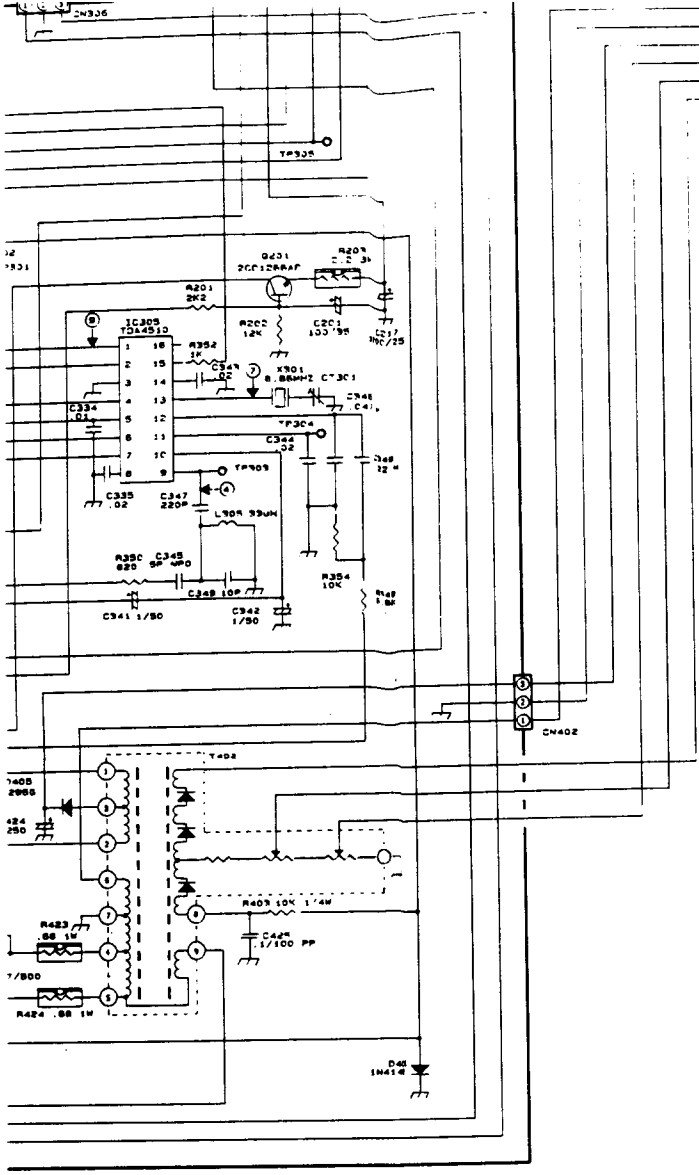

IC801 SAA5244AP/A
IC601 PCACTV322S
IC/C1 SAA5010
IC010 SAA7280
IC005 TC4052BF
IC302 TEA5114A

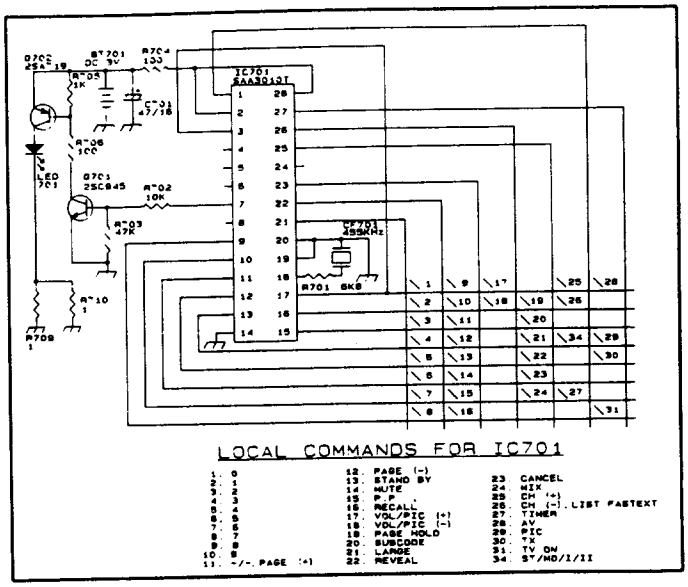



IC201 LA4445
IC305 TDA4510
IC306 TDA8732
IC301 PC74HCT24P
IC302 TEA5114A
IC305 C40528F


CN303
CN304
CN305
CN306
R333 220K
R355 100K
IC304
TDA3504
R336 100
R337 100
R338 100
L301 8.2uH R353 330
L302 8.2uH R343 330
L303 8.2uH R344 330
TP305
C321 .022 M
C320 220/16
C322 .022 M
C323 .022 M
C329 10/16
C328 10/16
R328 1K
R329 1K
R331 1K
C332 .02
C331 .02
D302
1N4148
R341 47K
TP302
TP301
DLY302
C312 10/16
R302 1K
C324 .1 M
C326 .1 M
C325 .1 M
C327 10/16
C351 10/16
R345 4K7
R319 100
Q302
2SC1815
R322 100
R320 1K
C380 1/50
R318 39K
R334 390
R357 8K6
R317 100
R316 100
R332 2.2K
R321 10K
R325 1K
Q303
2SC1015
R326 100
C314 10/16
C315 10/16
C311 100/16
C352 220P
C313 470/16
C316 10/16
C317 10/16
C318 10/16
R330 1K
IC303
TA8628N
C319 .01
C330 .01
R346 22K
C340 10/16
C337 4.7/16
R339 10K
C336 10/16
R334 1K8
DLY301
R335 1.8K
R348 4K7
C339 .01
T301
VR302 500-B D.L LEVEL
R340 180
R347 390
C333 .01
R323 1.3K
L304 8.2uH
R351 2.2 1/2W
C338 470/16
IC305
TDA4510
R352 1K
C343 .02
X301 8.86MHz
CT301
C346
C334 .01
TP304
C344 .02
TP303
C335 .02
C347 220P
L305 39uH
R350 820
C345 5P NPO
C349 10P
C341 1/50
C342 1/50
R354 10K
R201 2K2
Q201
R203
R202 12K
C201 100/35
C217
R412 470
12V
Q401
2SC2482
Q402
2SD1555
T401
R415 2K7 1/2W
C420 .0022 /1K6 MP
R384 5.6K
VR301 50K-B SUB-BRIGHT
C412 .001 M
C415 .0012/ 500V
R416 2K 5W
R418 82 1/4W
C418 .0033/ 1K6 MP
C419 .0022/2KV
R419 6.8K
D405 SS2956
C424 10/250
T402
C421 1000/16
D404 RU2
R422 3.3 2W
R423 .68 1W
ZD402 12V 1W
C423 .0047/500
C422 2200/25
R424 .68 1W
R421 120K 1/2W
R403 10K 1/4W
C425 .1/100 PP
ZD401 10V
R420 8K2 1/4W
D40 1N4148
IC401 TDA3653B
R407 10K
C408 100/35
C405 .0047 M
R404 3K9
R401 18K
C401 47/16
D401 SS2956
C403 .0047 M
C407 680P
C410 220/35
C411 220/35
C417 47/160
C413 .0047/500
D402 SS2956
R405 47K
R408 10K
C406 2200/25
R413 220 1W
C416 1/160
D403 SS2956
R414 1K 1W
L401
R417 22K
R402 1K
R406 22K
R425 820
R409 2.7K 1/2W
C402 .001 M
VR401 1K-B V.HEIGHT
C404 3.3/16 BX T
R410 1.5 1W
R411 220 1/4W
C409 .1 M
R833
R826 33 1/4W
CN401
VERT
HORI
DEFLECTION YOKE


IC301
HCT24P
20 Vcc
19 2OE
18 1Y0
17 2A0
16 1Y1
15 2A1
14 1Y2
13 2A2
12 1Y3
11 2A3
IC401
TDA3653B
INPUT 1
GND 2
INPUT 3
GND 4
OUTPUT 5
VP 6
NC 7
Feedback 8
VP 9
IC304
TDA3504
BLUE OUTPUT 1
POSITIVE SUPPLY VOLT. (+12V) 2
BLUE STORAGE FOR BRI. 3
GREEN STORAGE FOR BRI. 4
RED STORAGE FOR BRI. 5
SANDCASTLE PULSE INPUT 6
FAST SWITCH FOR RGB INPUT 7
BLUE INPUT (EXT. SIGNAL) 8
GREEN INPUT (EXT. SIGNAL) 9
RED INPUT (EXT. SIGNAL) 10
20 GREEN OUTPUT
19 RED OUTPUT
18 GND (0 V)
17 BRI. CONTROL INPUT
16 CONTRAST CONTROL INPUT
15 COLOR DIFFERENCE INPUT-(B-Y)
14 COLOR DIFFERENCE INPUT-(R-Y)
13 NOT CONNECTED
12 SATURATION CONTROL INPUT
11 LUMINANCE INPUT
IC102
TDA8305A
ABC TAKE OVER 1
VERT. RAMP GENT. 2
VERT. DRIVE 3
VERT. FEEDBACK 4
TUNER AGC 5
GND 6
SUPPLY 7
VIF INPUT 8
VIF INPUT 9
DECOUPLING CAPACITOR 10
VOL. CONTROL/ START HOR. OSC. 11
AUDIO OUTPUT 12
SOUND DEMODULATOR 13
SIF DECOUPLING 14
28 PHASE 2 DEF.
27 SANDCASTLE OUTPUT/ FLYBACK INPUT
26 HOR. DRIVE
25 SYNC SEPARATION
24 PHASE 1 DET.
23 HOR. OSC.
22 COINCIDENCE DET. DECOUPLING
21 SYNC DEMODULATOR
20 SYNC DEMODULATOR
19 AGC DETECTION
18 AFC OUTPUT
17 VIDEO OUTPUT
16 GND
15 SIF INPUT
IC602
ST24C01B1
A0 1 8
A1 2 7
A2 3 6
VSS 4 5
IC103
L7812CV
OUTPUT 2
GROUND 3
INPUT 1
LA4445
1
2
3
4
5
6
7
8
9
10
11
12
IC303
TA8628N
AUDIO TV in (L) 1
MUTE (I) 2
AUDIO TV out (L) 3
TV/EXT SWITCHING 4
VIDEO TV in (P) 5
VIDEO TV IN 6
GND VIDEO SYSTEM 7
GND AUDIO SYSTEM 8
VIDEO TV out 9
AUDIO TV out (R) 10
VOL. 11
AUDIO TV in (R) 12
24 AUDIO EXT in (L)
23 MUTE (II)
22 AUDIO MONI (L)
21 NC
20 VIDEO MONI
19 NC
18 Vcc VIDEO SYSTEM
17 VIDEO EXT in
16 Vcc AUDIO SYSTEM
15 AUDIO MONI (R)
14 NC
13 AUDIO EXT in (R)
IC101
TDA3857
FMIF1 1
C ABC 2
MATR 3
FMIF1 4
FM2R2 5
AF2 6
AF1 7
FM2R1 8
FM1R2 9
VC-R1 10
20 FMIF2
19 VB
18 GND
17 FM2I
16 C AF2
15 ICO
14 C AF1
13 FM1I
12 TRACK
11 VC-R2
IC901
L7805CV
OUTPUT 2
GROUND 3
INPUT 1
IC007 & IC008
NE5532
OUTPUT 1
INVERTING 2
NON-INVERTING INPUT A 3
V- 4
8 V-
7 OUTPUT B
6 INVERTING INPUT B
5 NON-INVERTING INPUT B
IC009
TDA1543
BCK 1 8
WS 2 7
DATA 3 6
GND 4 5





LOCAL COMMANDS FOR IC701

1: 0	12: PAGE (-)	23: CANCEL
2: 1	13: STAND BY	24: MIX
3: 2	14: MUTE	25: CH (+)
4: 3	15: P.P	26: CH (-), LIST FASTEXT
5: 4	16: RECALL	27: TIMER
6: 5	17: VOL/PIC (+)	28: AV
7: 6	18: VOL/PIC (-)	29: PIC
8: 7	19: PAGE HOLD	30: TX
9: 8	20: SUBCODE	31: TV ON
10: 9	21: LARGE	34: ST/MO/I/II
11: +/- PAGE (+)	22: REVEAL	

NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED

(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.

ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/16 W UNLESS OTHERWISE NOTED

(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.

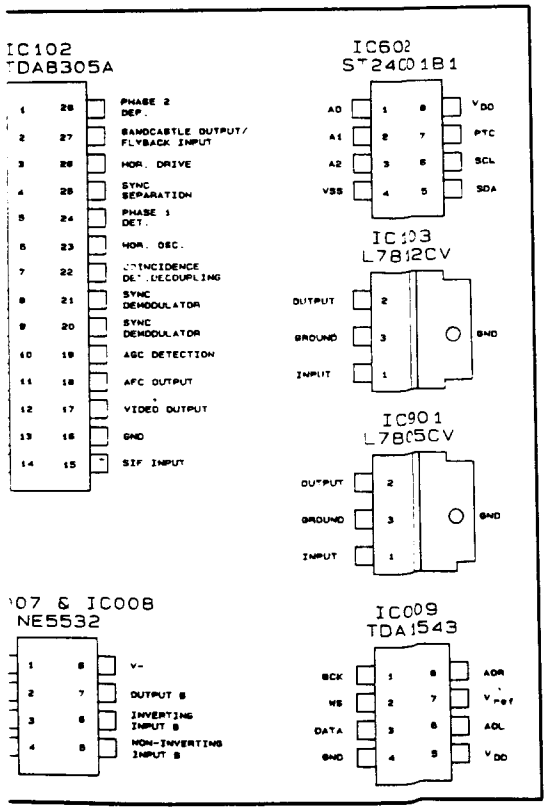
METAL OXIDE RESISTOR
CARBON COMPOSITION RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR

(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT BROUND WITH A DIGITAL MULTIMETER TEST.

(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).

(7) THIS CIRCUIT DIABRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

(8) ON THE SCHEMATIC SHOULD BE REPLAED WITH EXACT MANUFACTURER RECOMMENED PARTS.

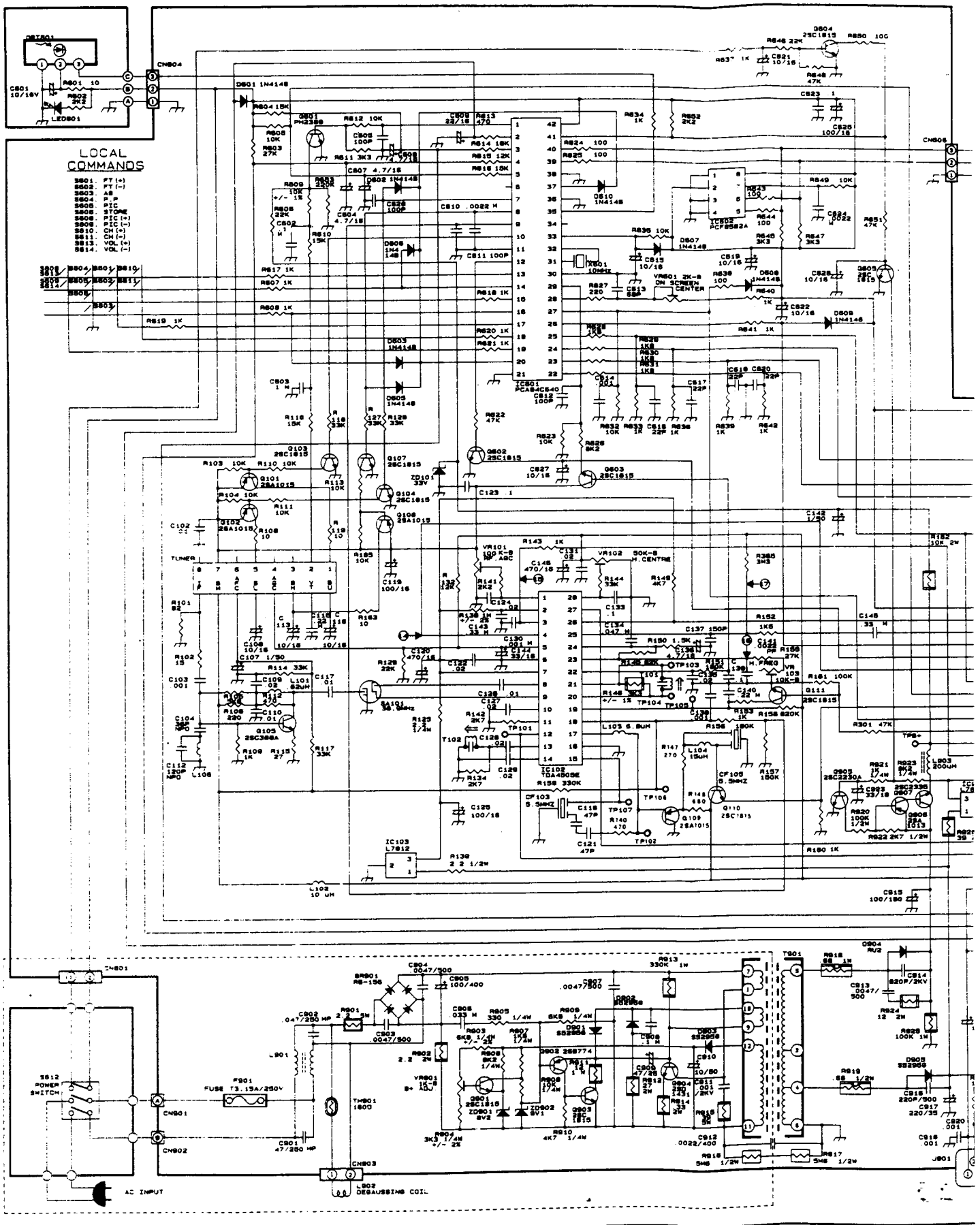


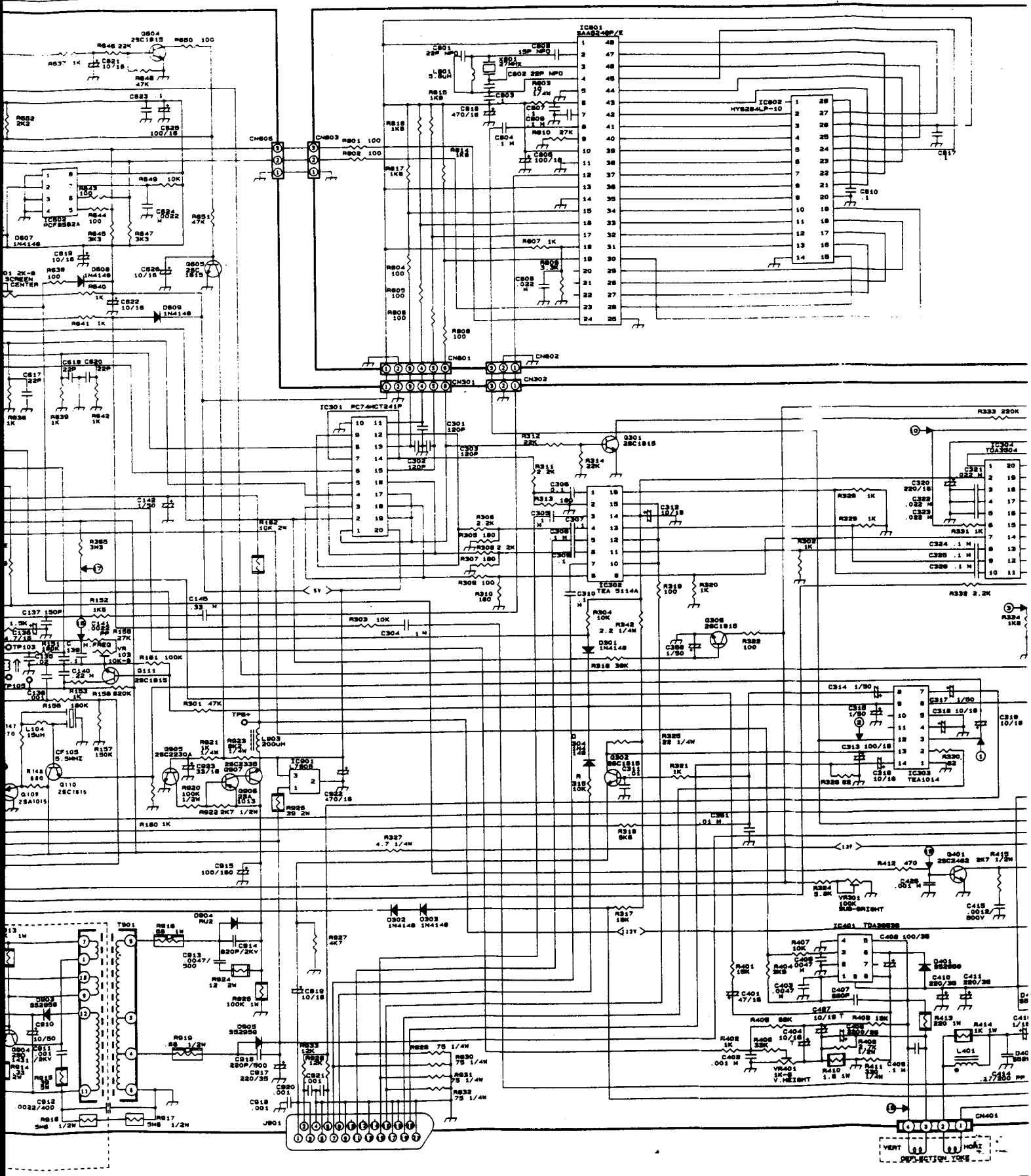
GREAT WALL FRANCE

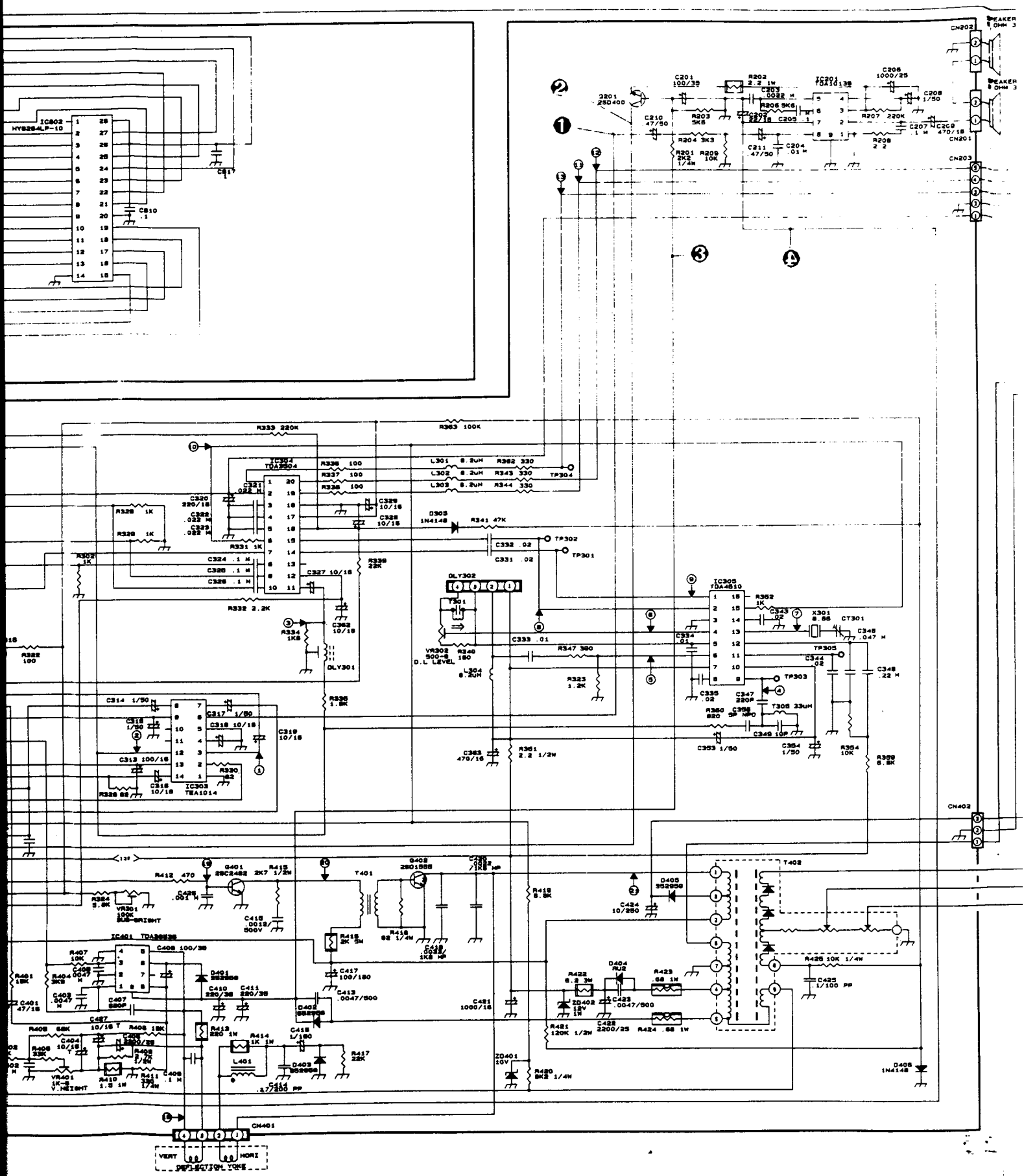
SHEMATIC DIAGRAM N°5

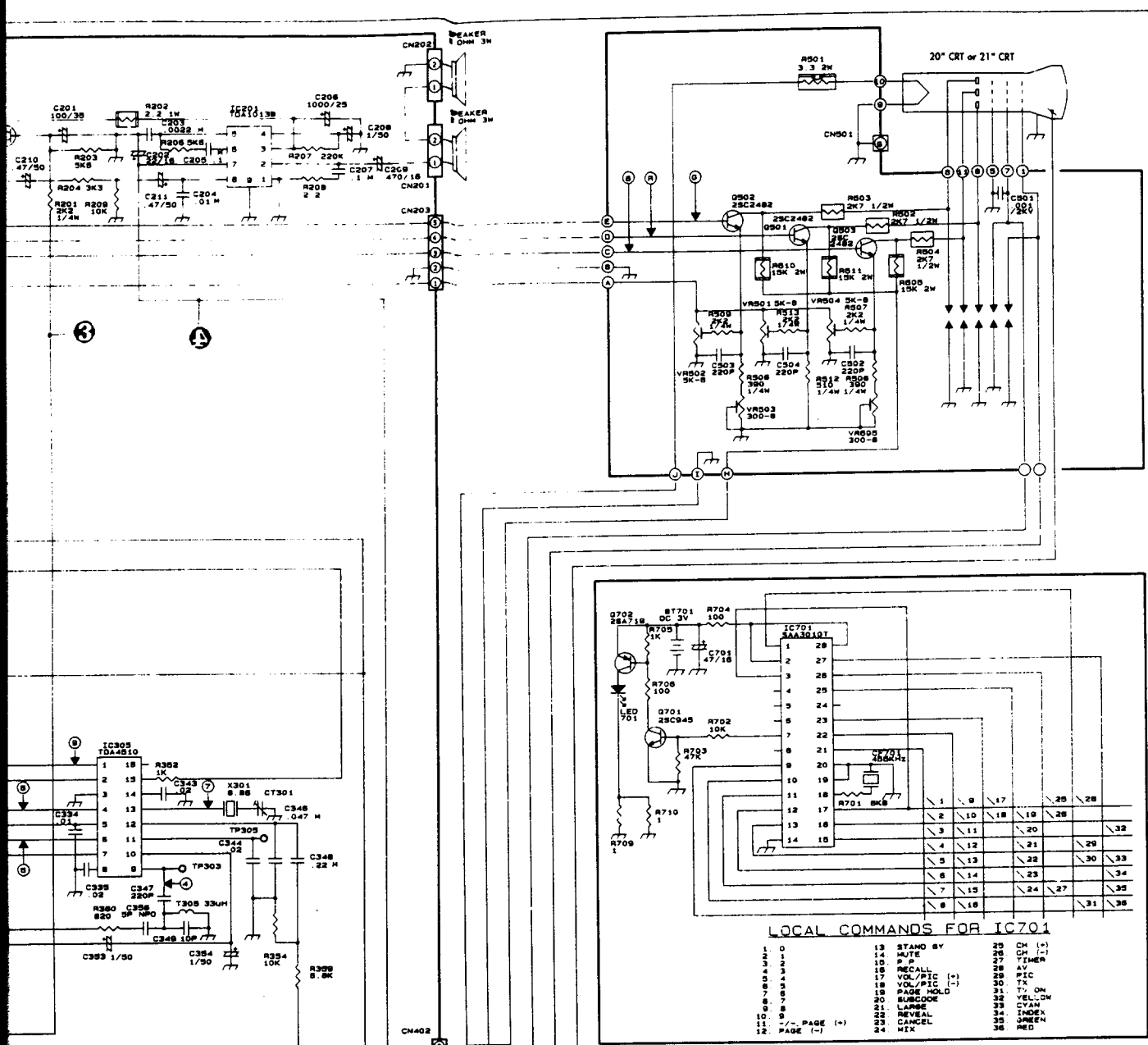
PAL I WITH S TEXT - NICAM
SCART CONNECTOR
EXTERNAL SPEAKER

SUITABLE FOR MODELS
9213 - 8821
8921 - 9220


LOCAL
COMMANDS
AC INPUT
POWER SWITCH
DEGAUSSING COIL
TUNER
IC801 SAA5246
IC801 PCA84C640P
IC102 TDA4505
IC701


IC901 SAA9240P/E
IC902 HYS264LP-10
IC301 PC74HCT241P
IC304 TDA3804
IC305 TEA 5114A
IC303 TEA1014
IC401 TDA2030
IC701 SAA3010
IC502 HYS264LP
IC304 TDA3804
TDA4505
CN801
CN802
CN301
CN302
CN401
J901
T901
VERT
HOR
DEFLECTION YOKE
PHASE 2 DEF
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET
HOR. OSC.
BLUE OUTPUT
POSITIVE SUPPLY VOLT. (+12V)
BLUE STORAGE FOR BRI.
GREEN STORAGE FOR BRI.
RED STORAGE FOR BRI.
SANDCASTLE PULSE INPUT
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT- (B-Y)


IC304 TDA3804
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT (B-Y)
COLOR DIFFERENCE
IC301 PC74HCT24P
Vcc
2OE
2YO
2A0
2Y1
2A1
IC305 TDA4810
COLOR SWITCHING
SANDCASTLE PULSE
IDENTIFICATION
OSC
PLL
COLOR ON
IC302 TEA5114A
R OUTPUT
G OUTPUT
B OUTPUT
Vcc



LOCAL COMMANDS FOR IC701

1. 0	13. STAND BY	25. CH (+)			
2. 1	14. MUTE	26. CH (-)			
3. 2	15. P P	27. TIMER			
4. 3	16. RECALL	28. AV			
5. 4	17. VOL/PIC (+)	29. PIC			
6. 5	18. VOL/PIC (-)	30. TX			
7. 6	19. PAGE HOLD	31. TV ON			
8. 7	20. SUBCODE	32. YELLOW			
9. 8	21. LARGE	33. CYAN			
10. 9	22. REVEAL	34. INDEX			
11. -/-- PAGE (+)	23. CANCEL	35. GREEN			
12. PAGE (-)	24. MIX	36. RED			

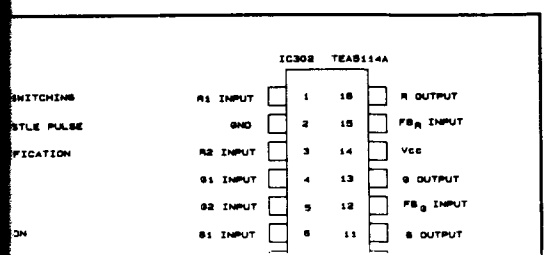
1	9	17		25	28				
2	10	18	19	26					
3	11		20			32			
4	12		21		29				
5	13		22		30	33			
6	14		23			34			
7	15		24	27		35			
8	16				31	36			

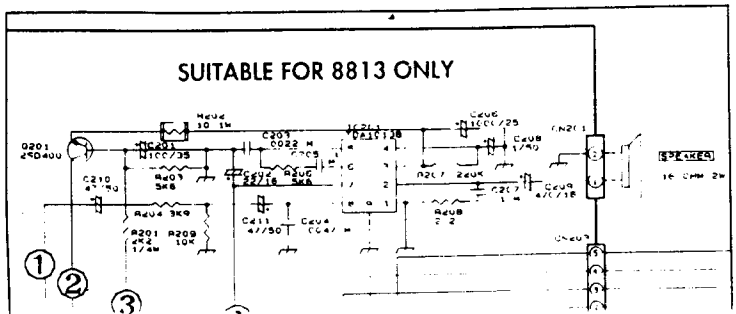
NOTE:

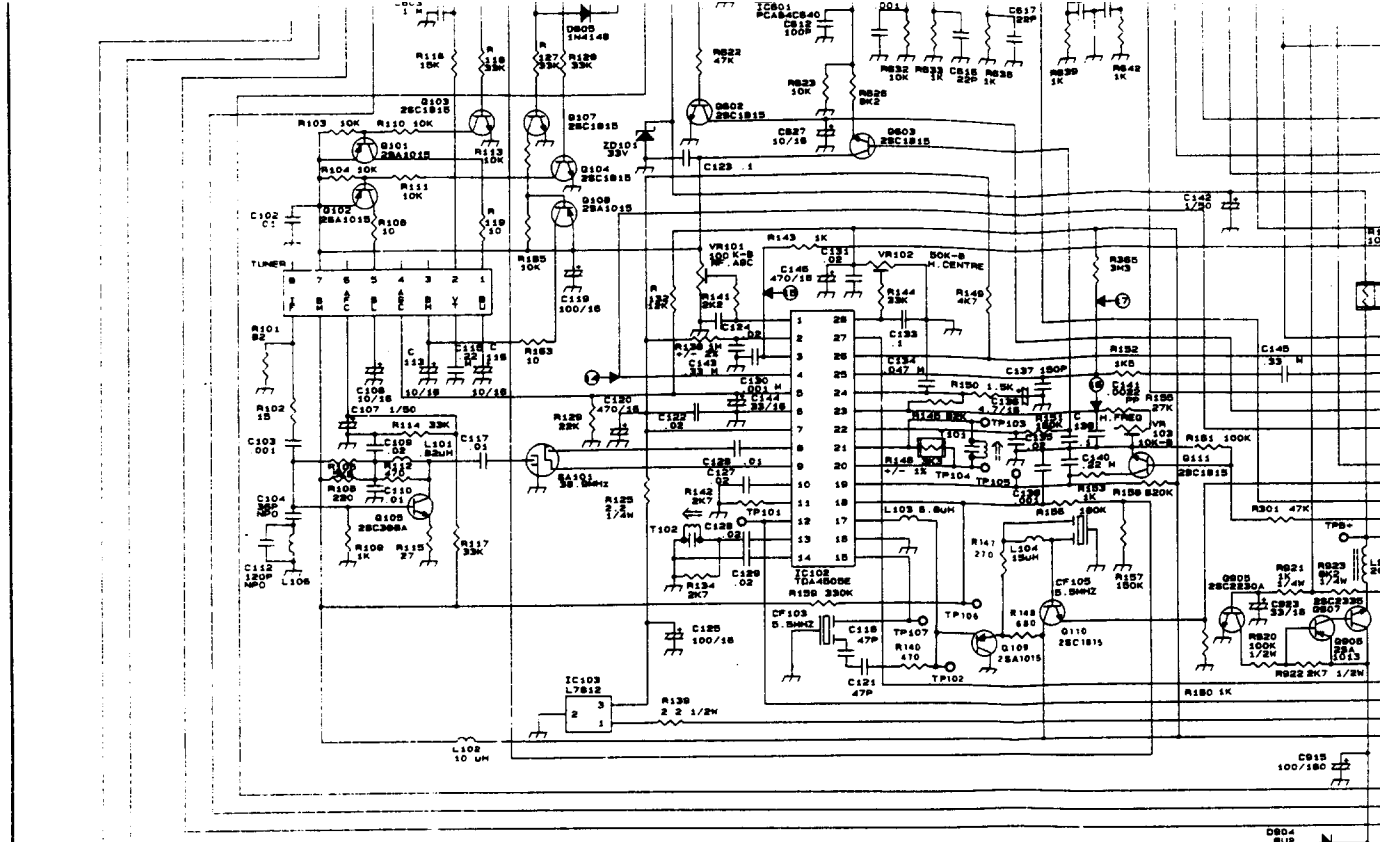
(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED
(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR
ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR
(3) ALL RESISTORS ARE IN OHM 1/16 W UNLESS OTHERWISE NOTED
(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON ... RESISTORS

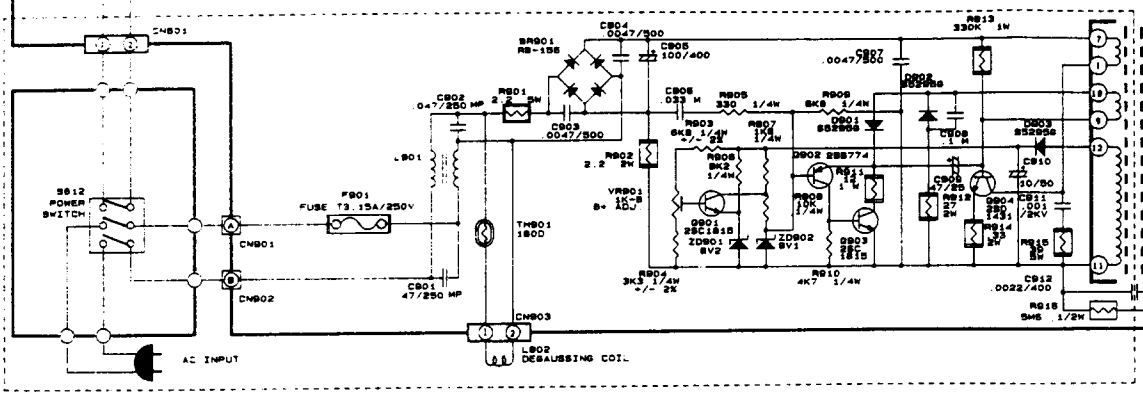
METAL OXIDE RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR
CARBON COMPOSITION RESISTOR

(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).
(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.
(8) ON THE SCHEMATIC SHOULD BE REPLAED WITH EXACT MANUFACTURER RECOMMENED PARTS.








CN801
S812 POWER SWITCH
FB01 FUSE T3.15A/250V
CN801
CN802
AC INPUT
CN803
L802 DEGAUSSING COIL
TH801 180D
VR801 1K-B ADJ.
TP01
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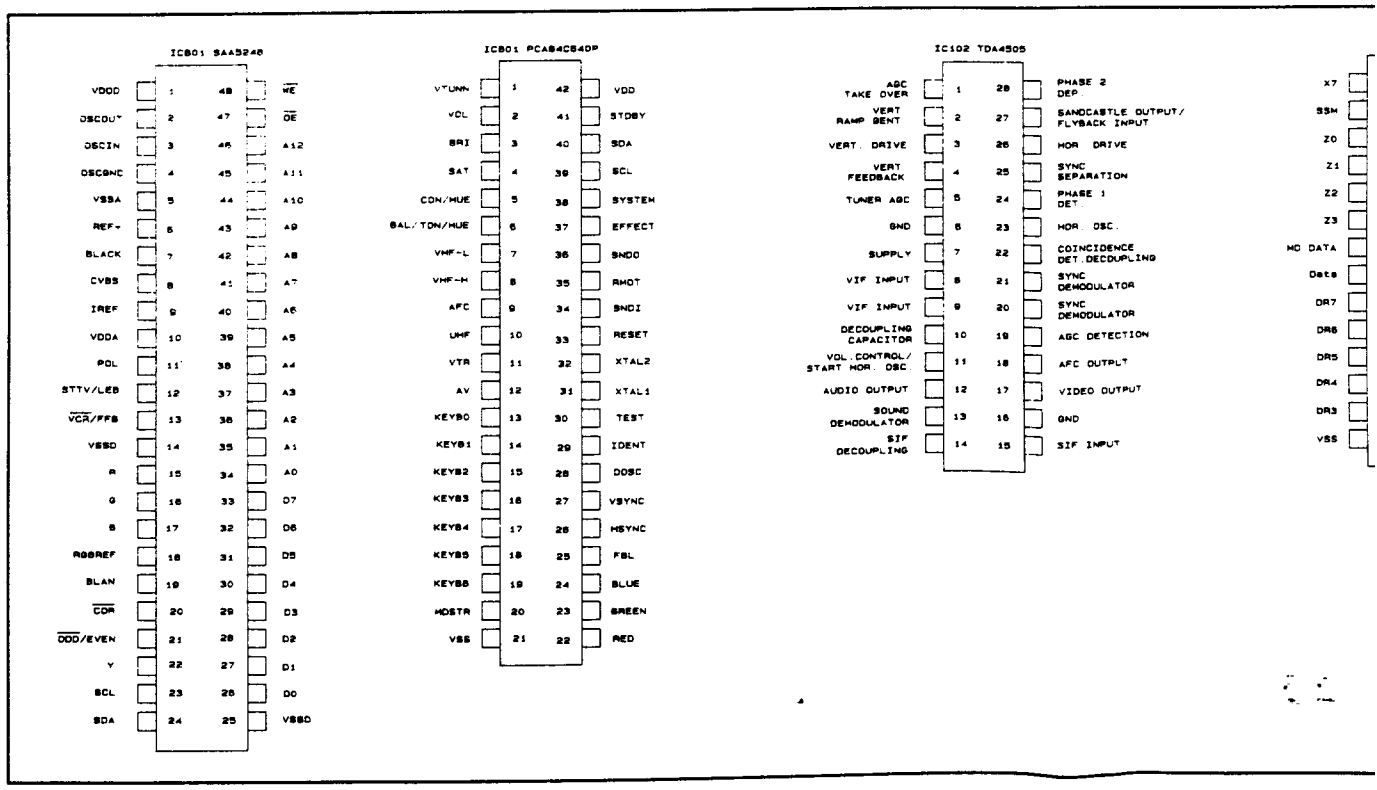
IC801 SAA5248
VDDD 1
OSCOUT 2
OSCIN 3
OSCGND 4
VSSA 5
REF+ 6
BLACK 7
CVBS 8
IREF 9
VDDA 10
PDL 11
STTV/LEB 12
VCR/FFS 13
VSSD 14
R 15
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B 17
RGBREF 18
BLAN 19
COR 20
ODD/EVEN 21
Y 22
SCL 23
SDA 24
48 WE
47 OE
46 A12
45 A11
44 A10
43 A9
42 A8
41 A7
40 A6
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37 A3
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IC801 PCA84C640P
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BRI 3
SAT 4
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VHF-L 7
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AFC 9
UHF 10
VTR 11
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HDSTR 20
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42 VDD
41 STDBY
40 SDA
39 SCL
38 SYSTEM
37 EFFECT
36 SNDO
35 RHOT
34 SNDI
33 RESET
32 XTAL2
31 XTAL1
30 TEST
29 IDENT
28 DOSC
27 VSYNC
26 HSYNC
25 FBL
24 BLUE
23 GREEN
22 RED
IC102 TDA4505
AGC TAKE OVER 1
VERT RAMP GENT 2
VERT. DRIVE 3
VERT FEEDBACK 4
TUNER AGC 5
GND 6
SUPPLY 7
VIF INPUT 8
VIF INPUT 9
DECOUPLING CAPACITOR 10
VOL.CONTROL/ START HOR. OSC. 11
AUDIO OUTPUT 12
SOUND DEMODULATOR 13
SIF DECOUPLING 14
28 PHASE 2 DEP.
27 SANDCASTLE OUTPUT/ FLYBACK INPUT
26 HOR. DRIVE
25 SYNC SEPARATION
24 PHASE 1 DET.
23 HOR. OSC.
22 COINCIDENCE DET. DECOUPLING
21 SYNC DEMODULATOR
20 SYNC DEMODULATOR
19 AGC DETECTION
18 AFC OUTPUT
17 VIDEO OUTPUT
16 GND
15 SIF INPUT
X7
SSM
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Z3
MD DATA
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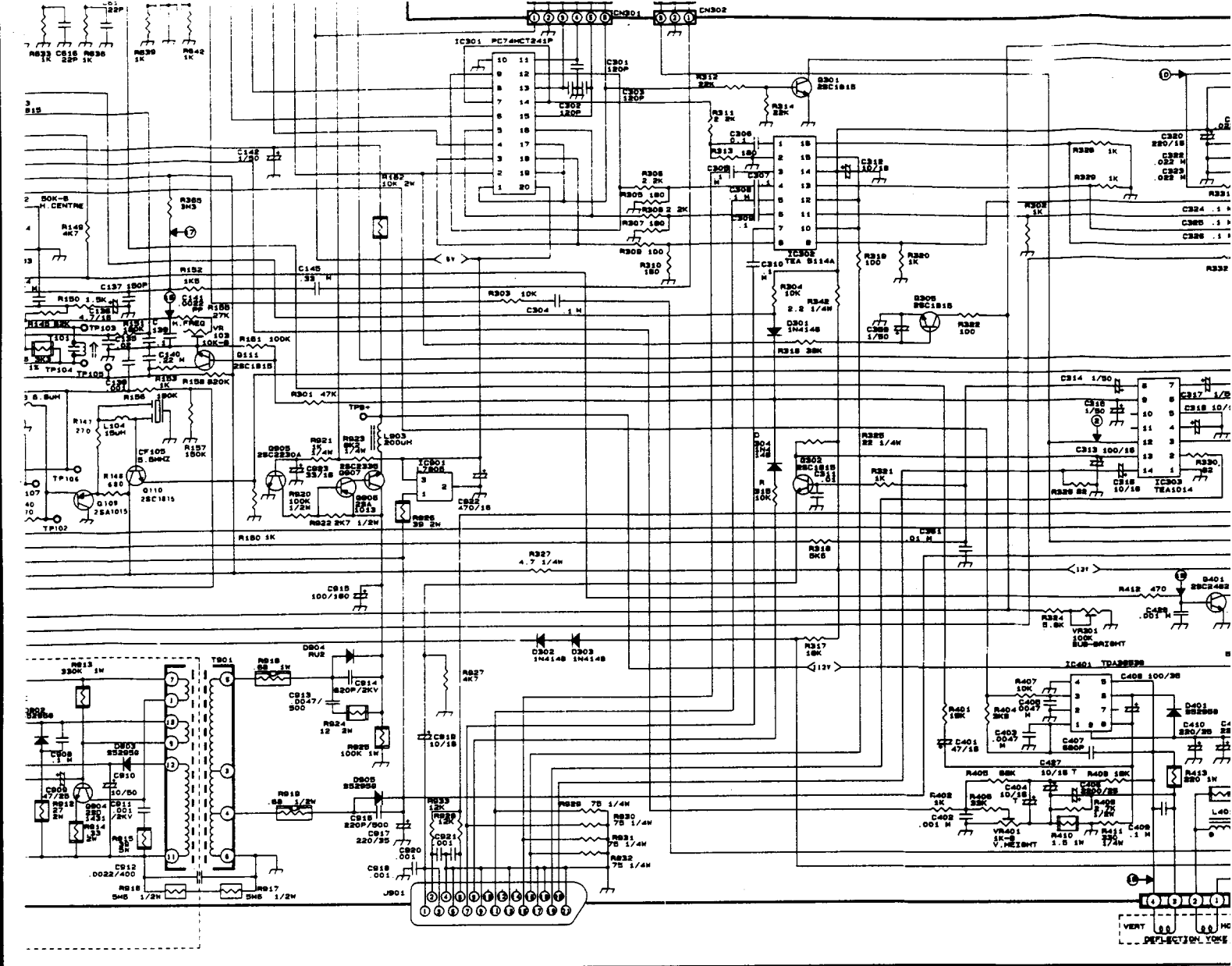
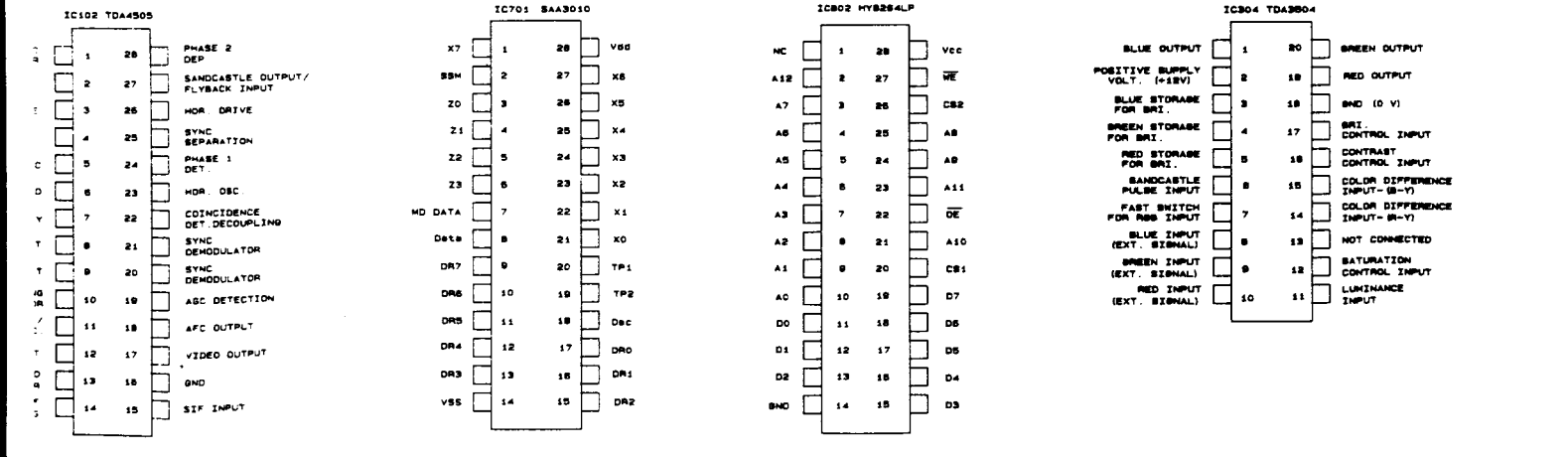
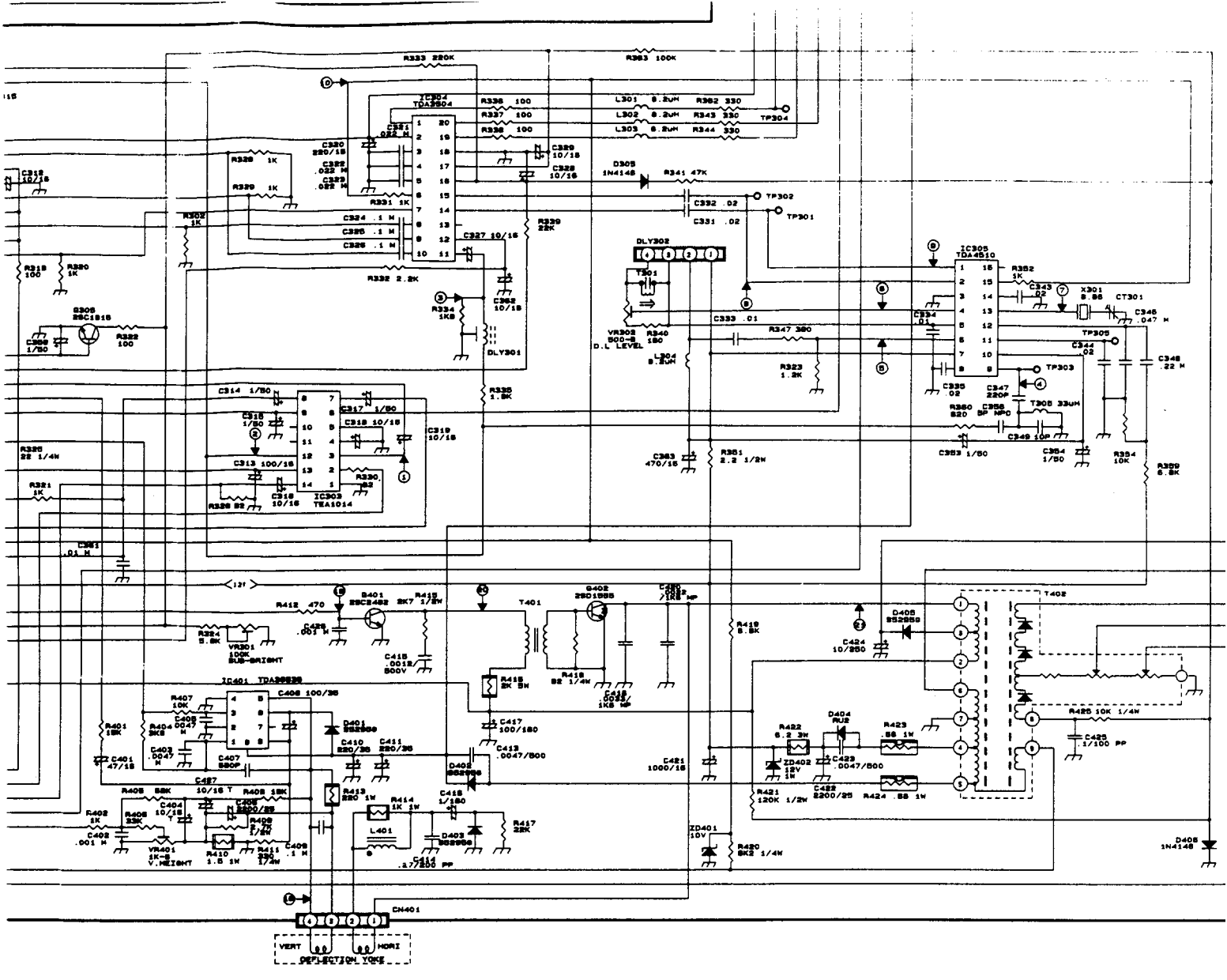
DR7
DR6
DR5
DR4
DR3
VSS




IC102 TDA4505
1 PHASE 2 DEF
2 SANDCASTLE OUTPUT/ FLYBACK INPUT
3 HOR. DRIVE
4 SYNC SEPARATION
5 PHASE 1 DET.
6 HOR. OSC
7 COINCIDENCE DET. DECOUPLING
8 SYNC DEMODULATOR
9 SYNC DEMODULATOR
10 AGC DETECTION
11 AFC OUTPUT
12 VIDEO OUTPUT
13 GND
14 SIF INPUT
IC701 SAA3010
X7 VSS
SSM X6
Z0 X5
Z1 X4
Z2 X3
Z3 X2
MD DATA X1
Data X0
DR7 TP1
DR6 TP2
DR5 Osc
DR4 DR0
DR3 DR1
VSS DR2
IC802 HY6264LP
NC Vcc
A12 WE
A7 CS2
A6 A8
A5 A9
A4 A11
A3 OE
A2 A10
A1 CS1
A0 D7
D0 D6
D1 D5
D2 D4
GND D3
IC304 TDA3804
BLUE OUTPUT
POSITIVE SUPPLY VOLT. (+12V)
BLUE STORAGE FOR BRI.
GREEN STORAGE FOR BRI.
RED STORAGE FOR BRI.
SANDCASTLE PULSE INPUT
FAST SWITCH FOR RGB INPUT
BLUE INPUT (EXT. SIGNAL)
GREEN INPUT (EXT. SIGNAL)
RED INPUT (EXT. SIGNAL)
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT- (B-Y)
COLOR DIFFERENCE INPUT- (R-Y)
NOT CONNECTED
SATURATION CONTROL INPUT
LUMINANCE INPUT
IC602 PCF8582A
A0 VDD
A1 PTC
A2 SCL
VSS SDA
IC901 L7805CV
OUTPUT
GROUND
INPUT
GND
IC103 L7812CV
OUTPUT
GROUND
INPUT
GND



IC304 TDA3804

BLUE OUTPUT	1	20	GREEN OUTPUT
POSITIVE SUPPLY VOLT. (+12V)	2	19	RED OUTPUT
BLUE STORAGE FOR BRI.	3	18	GND (0 V)
GREEN STORAGE FOR BRI.	4	17	BRI. CONTROL INPUT
RED STORAGE FOR BRI.	5	16	CONTRAST CONTROL INPUT
SANDCASTLE PULSE INPUT	6	15	COLOR DIFFERENCE INPUT- (B-Y)
FAST SWITCH FOR RGB INPUT	7	14	COLOR DIFFERENCE INPUT- (R-Y)
BLUE INPUT (EXT. SIGNAL)	8	13	NOT CONNECTED
GREEN INPUT (EXT. SIGNAL)	9	12	SATURATION CONTROL INPUT
RED INPUT (EXT. SIGNAL)	10	11	LUMINANCE INPUT

IC301 PC74HCT86P

$\overline{1OE}$	1	20	Vcc
1A0	2	19	2OE
1Y0	3	18	1Y0
1A1	4	17	2A0
1Y1	5	16	2Y1
1A2	6	15	2A1
1Y2	7	14	2Y2
1A3	8	13	2A2
2Y3	9	12	1Y3
GND	10	11	2A3

IC305 TDA4510

- (R-Y)	1	16	COLOR SWITCHING
- (B-Y)	2	15	SANDCASTLE PULSE
GND	3	14	IDENTIFICATION
DELAY LINE IN	4	13	OSC
DC	5	12	PLL
DELAY LINE OUT	6	11	COLOR ON
VP	7	10	ACC
STABILIZATION	8	9	CHROMA IN

IC302 TEA5114A

R1 INPUT	1	16	R OUTPUT
GND	2	15	FB_R INPUT
R2 INPUT	3	14	Vcc
G1 INPUT	4	13	G OUTPUT
G2 INPUT	5	12	FB_G INPUT
B1 INPUT	6	11	B OUTPUT
B2 INPUT	7	10	FB_2=FB_B I
FB1 INPUT	8	9	FB OUTPUT

IC103 L7812CV

OUTPUT	2	
GROUND	3	GND
INPUT	1	

IC303 TEA1014

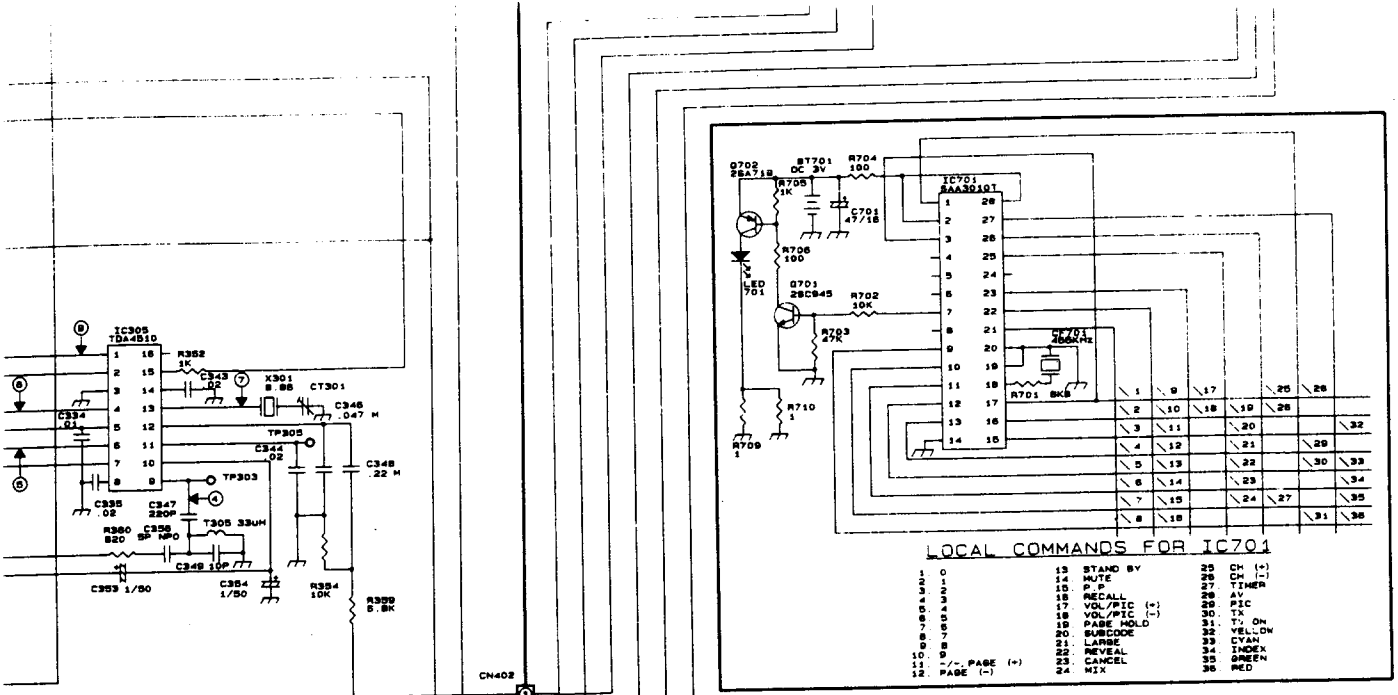
GND	1	14	EXT. VIDEO INPUT
EXT. VIDEO OUPUT	2	13	SUPPLY
INT. VIDEO INPUT	3	12	INT. VIDEO OUTPUT
REF.	4	11	BAND III INFORMATION
TIME CONSTANT SWITCHING	5	10	VIDEO RECORDER KEY
SOUND OUTPUT	6	9	VIDEO AND SOUND SWITCHING
EXT. SOUND INPUT	7	8	INT. SOUND INPUT

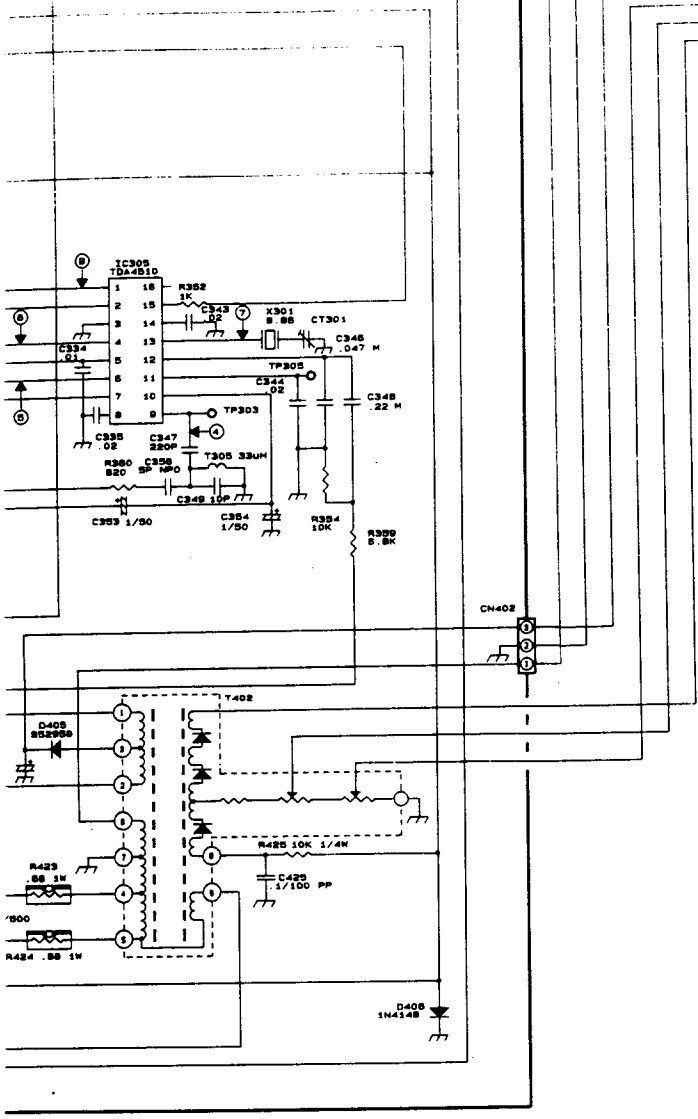
IC401 TDA3653B

INPUT	1
GND	2
INPUT	3
GND	4
OUTPUT	5
VP	6
NC	7
Feedback	8
VP	9

IC201 TDA1013B

SIGNAL GND	1
AMP. OUTPUT	2
SUPPLY VOLT.	3
ELECT. FILTER	4
AMP. INPUT	5
CONTROL UNIT OUTPUT	6
CONTROL VOLT.	7
CONTROL UNIT INPUT	8
POWER GND	9





NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED

(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.

ELECTROLYTIC CAPACITOR

BP BI-POLAR ELECTROLYTIC CAPACITOR

T TANTALUM CAPACITOR

M MYLAR CAPACITOR

MP METALLIZED POLYESTOR

P POLYESTOR FILM CAPACITOR

PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/16 W UNLESS [illegible] NOTED

(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON [illegible] RESISTORS

METAL OXIDE RESISTOR

CEMENT RESISTOR

FUSEBLE RESISTOR

THERMISTOR

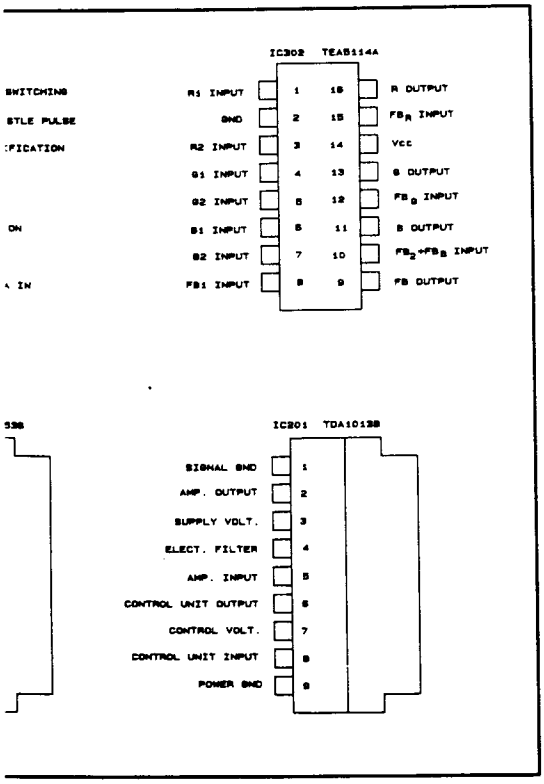
CARBON COMPOSITION RESISTOR

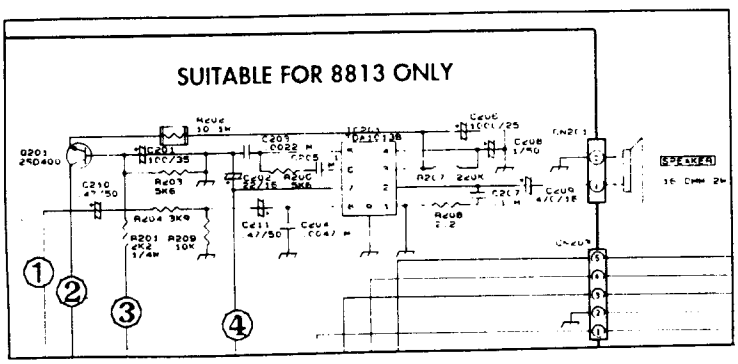
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT BROUND WITH A DIGITAL MULTIMETER TEST.

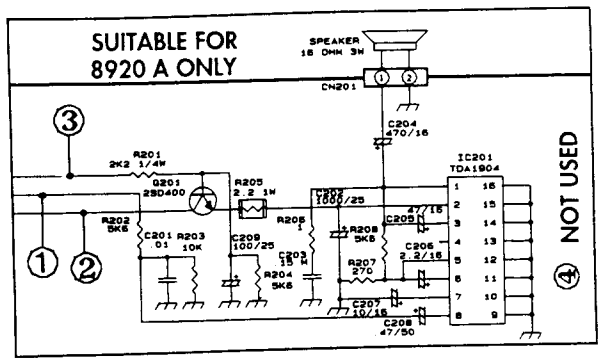
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).

(7) THIS CIRCUIT DIABRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

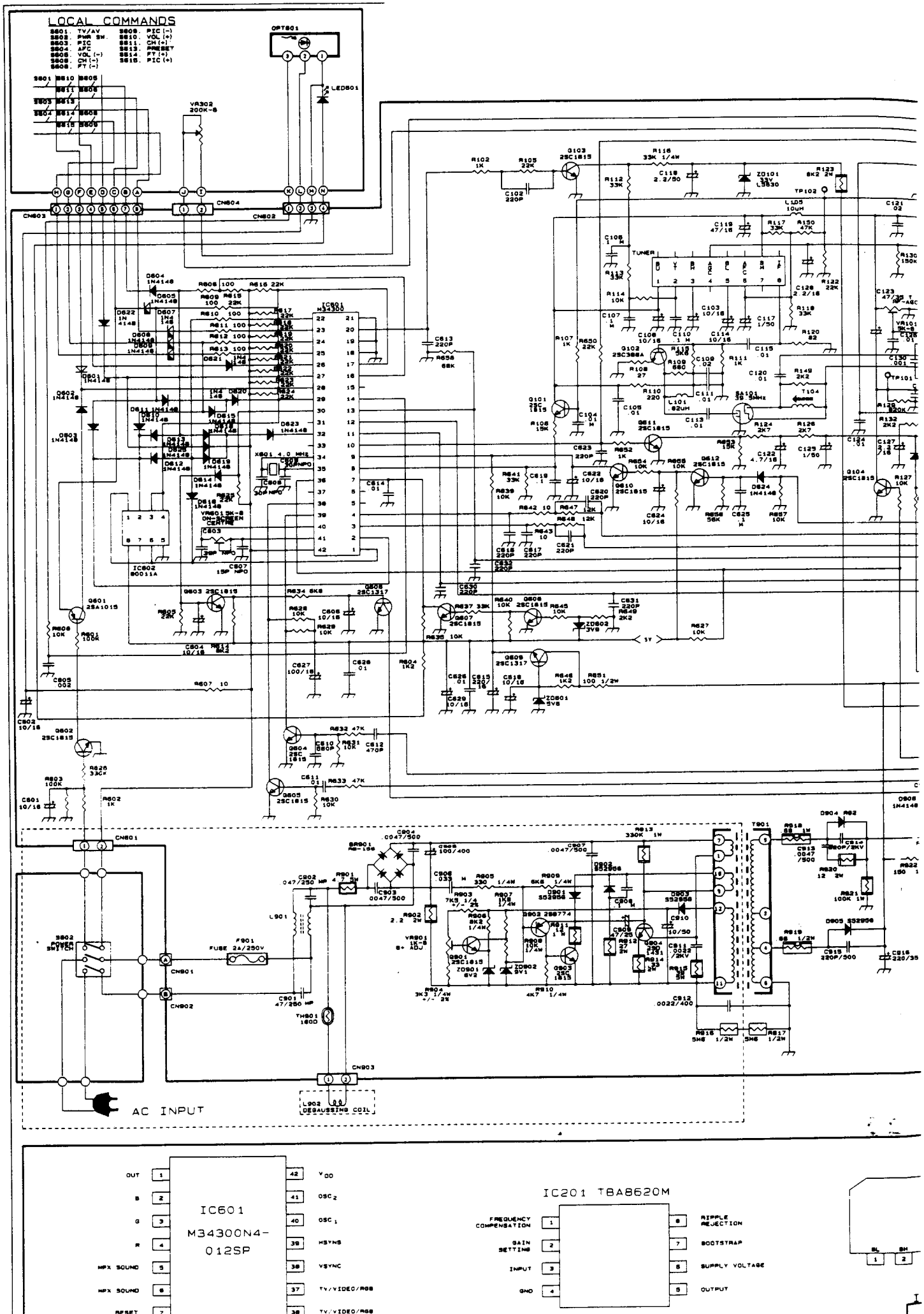
(8) ON THE SCHEMATIC SHOULD BE REPLAED WITH EXACT MANUFACTURER RECOMMENED PARTS.

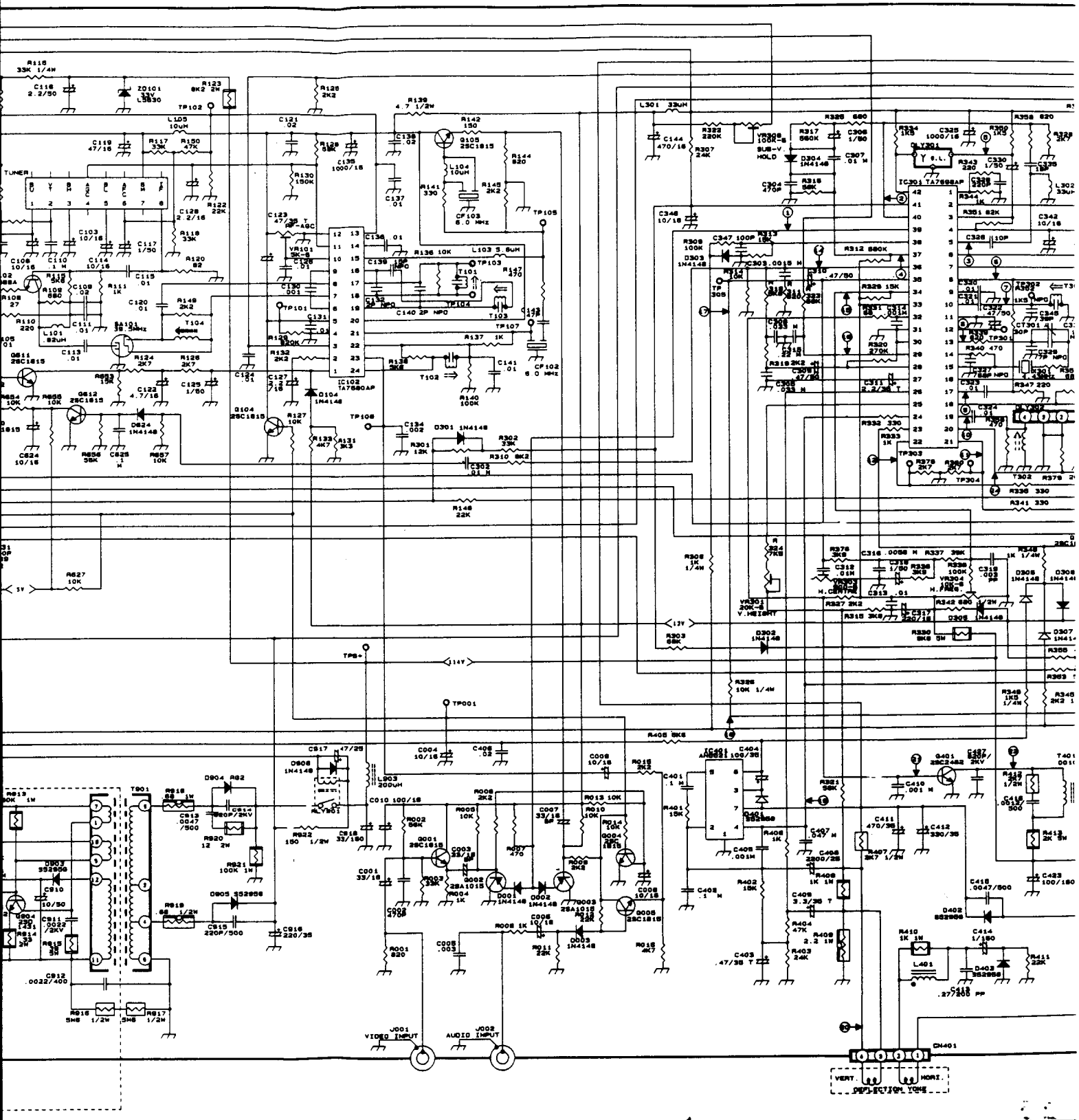




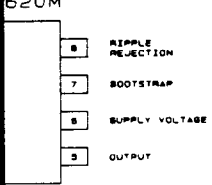


GREAT WALL FRANCE
SHEMATIC DIAGRAM N° 3
SUITABLE FOR MODELS 8920 B - 9220 - 8821 - 8921 PAL WITH S.TEXT WITH SCART CONNECTOR

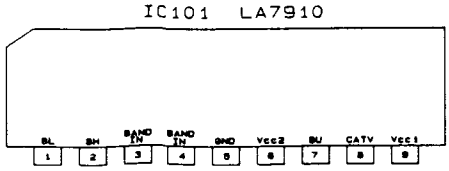

LOCAL COMMANDS
S601. TV/AV
S602. PWR SW.
S603. PIC
S604. AFC
S605. VOL (-)
S606. CH (-)
S607. FT (-)
S608. PIC (-)
S610. VOL (+)
S611. CH (+)
S613. PRESET
S614. FT (+)
S615. PIC (+)
OPT601
LED601
VR302 200K-B
CN804
CN802
CN803
TUNER
IC601 M34300
IC602 80011A
X601 4.0 MHz
VR601 2K-B ON-SCREEN CENTER
Q601 2SA1015
Q602 2SC1815
Q603 2SC1815
Q604 2SC1815
Q605 2SC1815
Q606 2SC1815
Q607 2SC1815
Q608 2SC1317
Q609 2SC1317
Q610 2SC1815
Q611 2SC1815
Q612 2SC1815
Q101 2SC1815
Q102 2SC3884A
Q103 2SC1815
Q104 2SC1815
ZD101 33V 1/5830
ZD601 3V8
ZD602 5V6
ZD801 5V6
T104 4.43MHz
L101 82UH
L105 10UH
CN801
CN901
CN902
CN903
S902 POWER SWITCH
F901 FUSE 2A/250V
VR901 15-B ADJ
T901
L901
L902 DEGAUSSING COIL
THR901 1800
AC INPUT
IC601 M34300N4-012SP
OUT
B
G
R
MPX SOUND
MPX SOUND
RESET
VDD
OSC2
OSC1
HSYNS
VSYNC
TV/VIDEO/RGB
TV/VIDEO/RGB
IC201 TBA8620M
FREQUENCY COMPENSATION
GAIN SETTING
INPUT
GND
RIPPLE REJECTION
BOOTSTRAP
SUPPLY VOLTAGE
OUTPUT



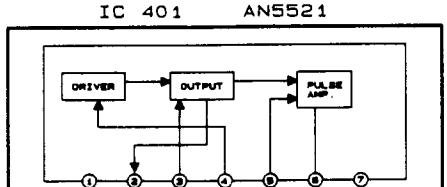
620M



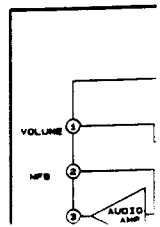
IC101 LA7910



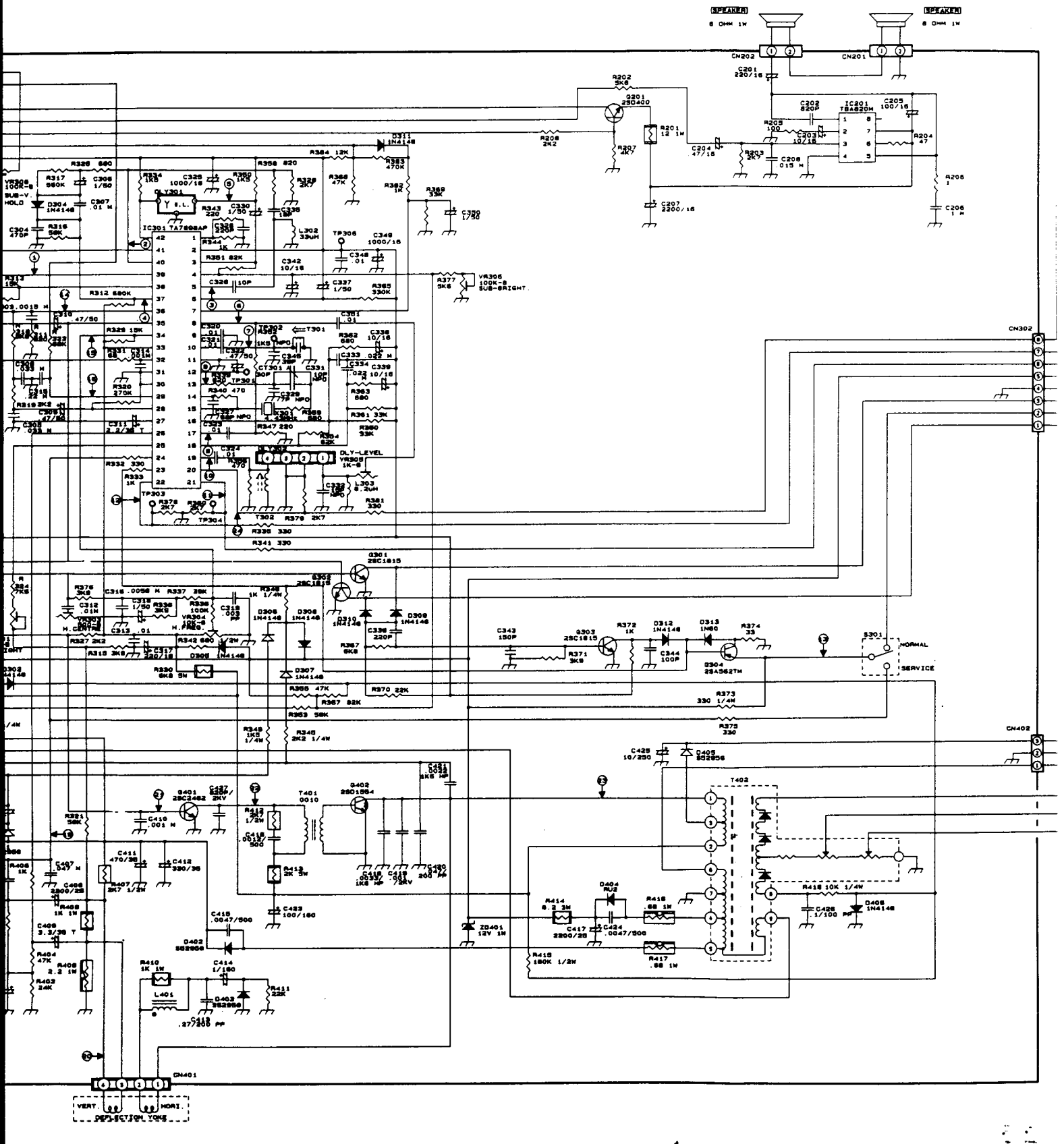
IC 401 AN5521

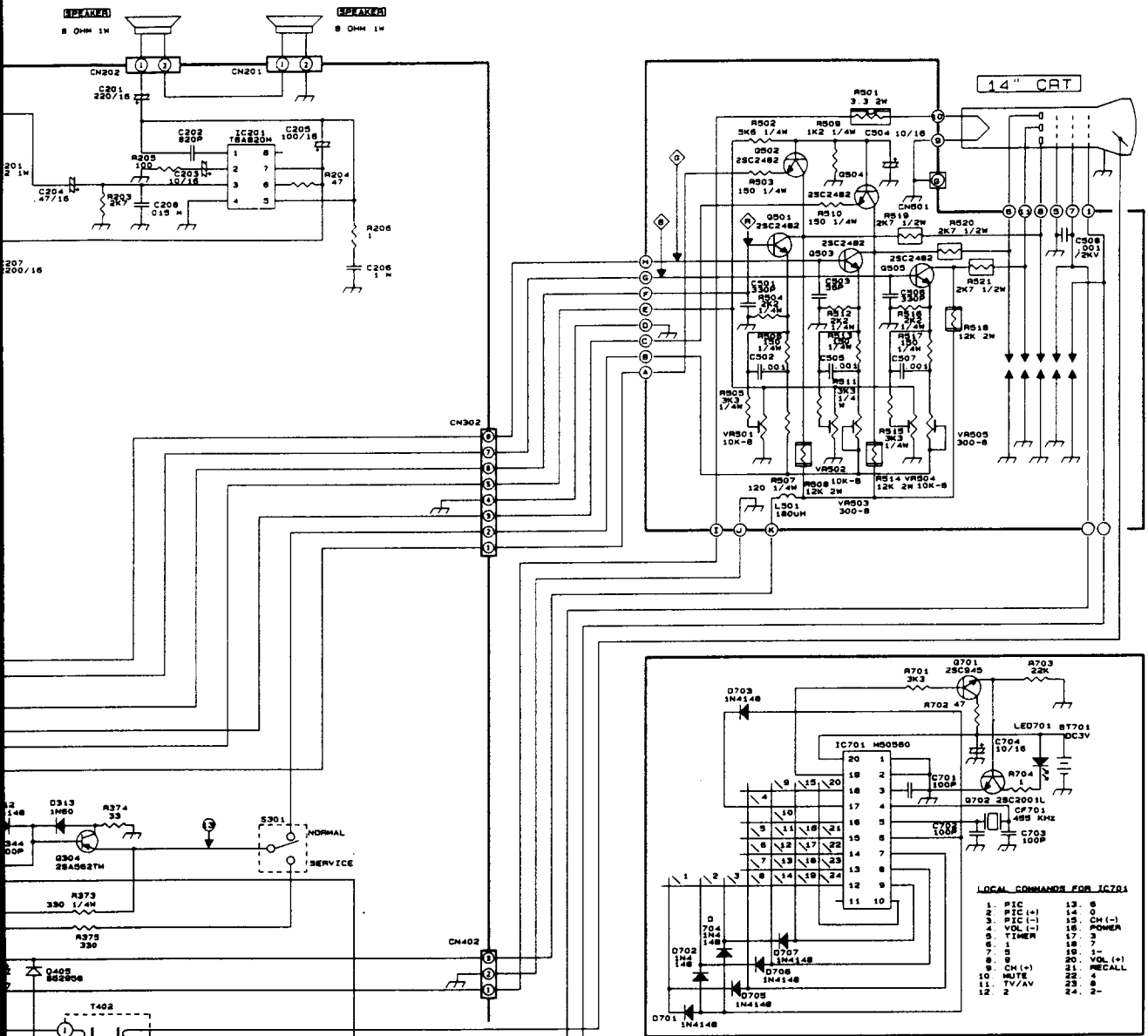


IC102



IC 301 TA7698AP


SPEAKER
8 OHM 1W
SPEAKER
8 OHM 1W
CN202
CN201
IC301 TA7698AP
IC201 TBA820M
IC102 TA7680AP
CN302
CN402
CN401
S301
NORMAL
SERVICE
VERT.
HORI.
DEFLECTION YOKE
DLY-LEVEL
SUB-V HOLD
SUB-RIGHT
H.CENTER
V.CENTER
VOLUME
AFB
ATT
AUDIO
SIF DET
DE-EMP
VCC
PULSE AMP.



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CARBON COMPOSITION RESISTOR
METAL OXIDE RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR

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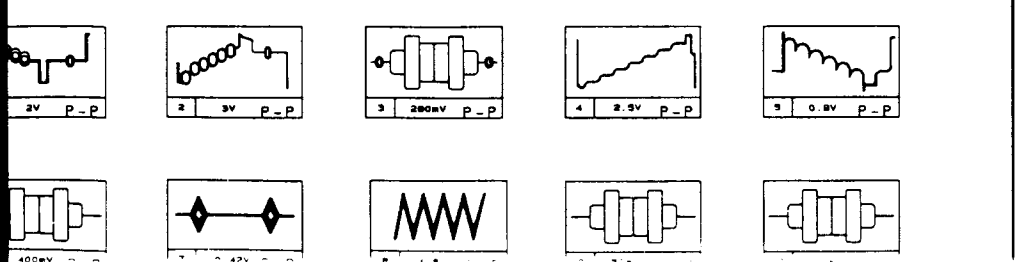
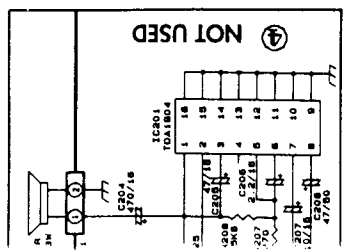
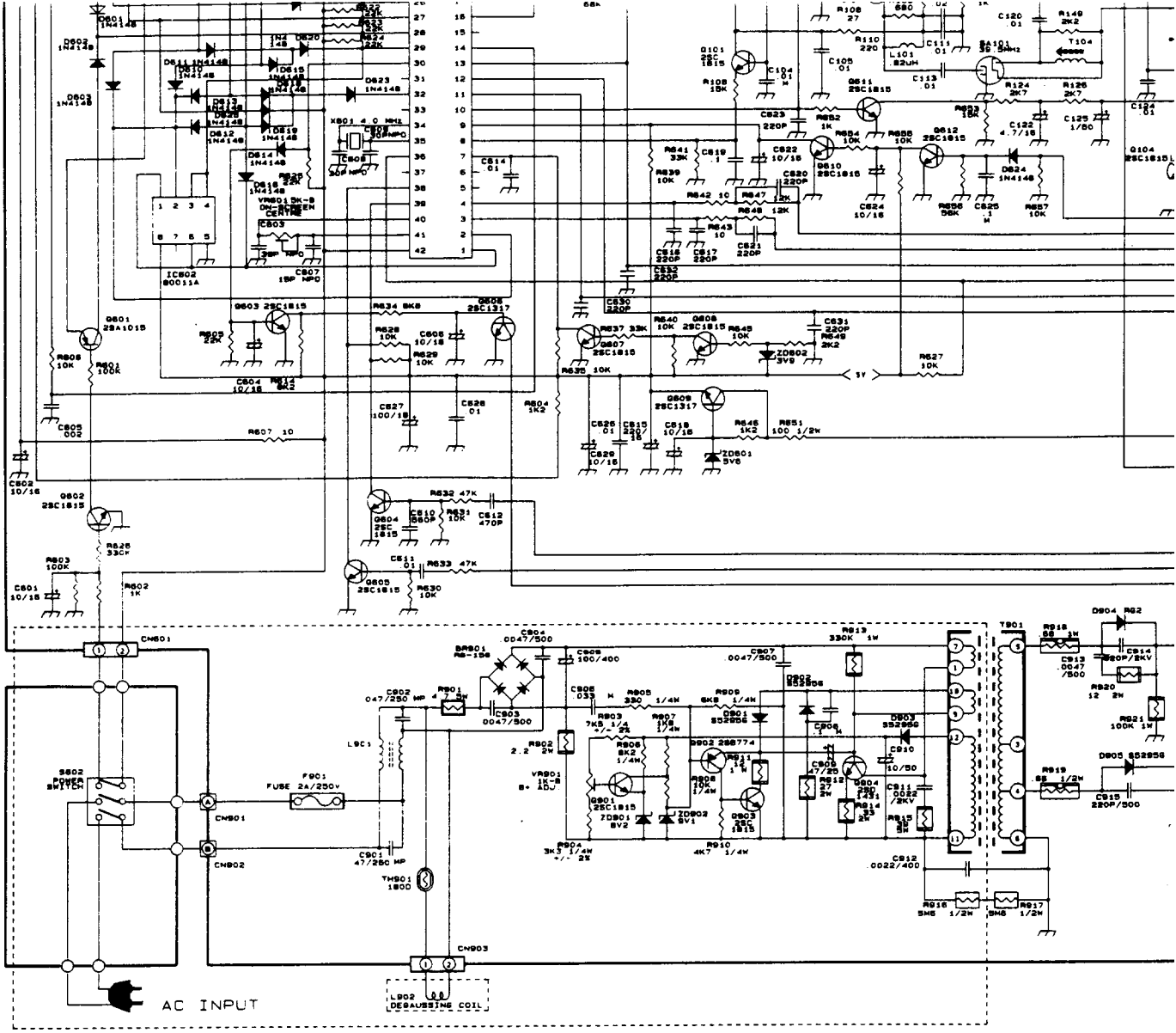
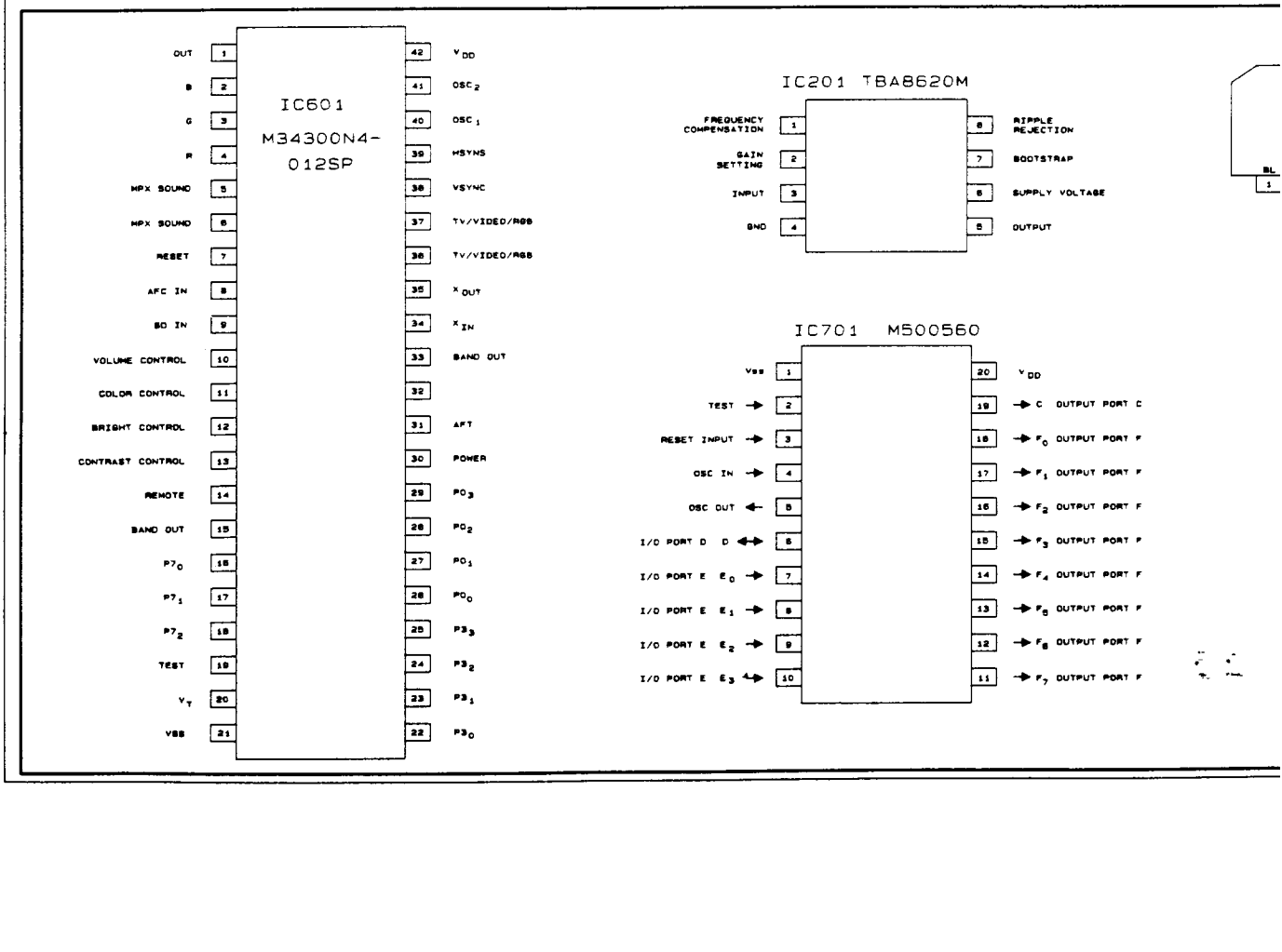
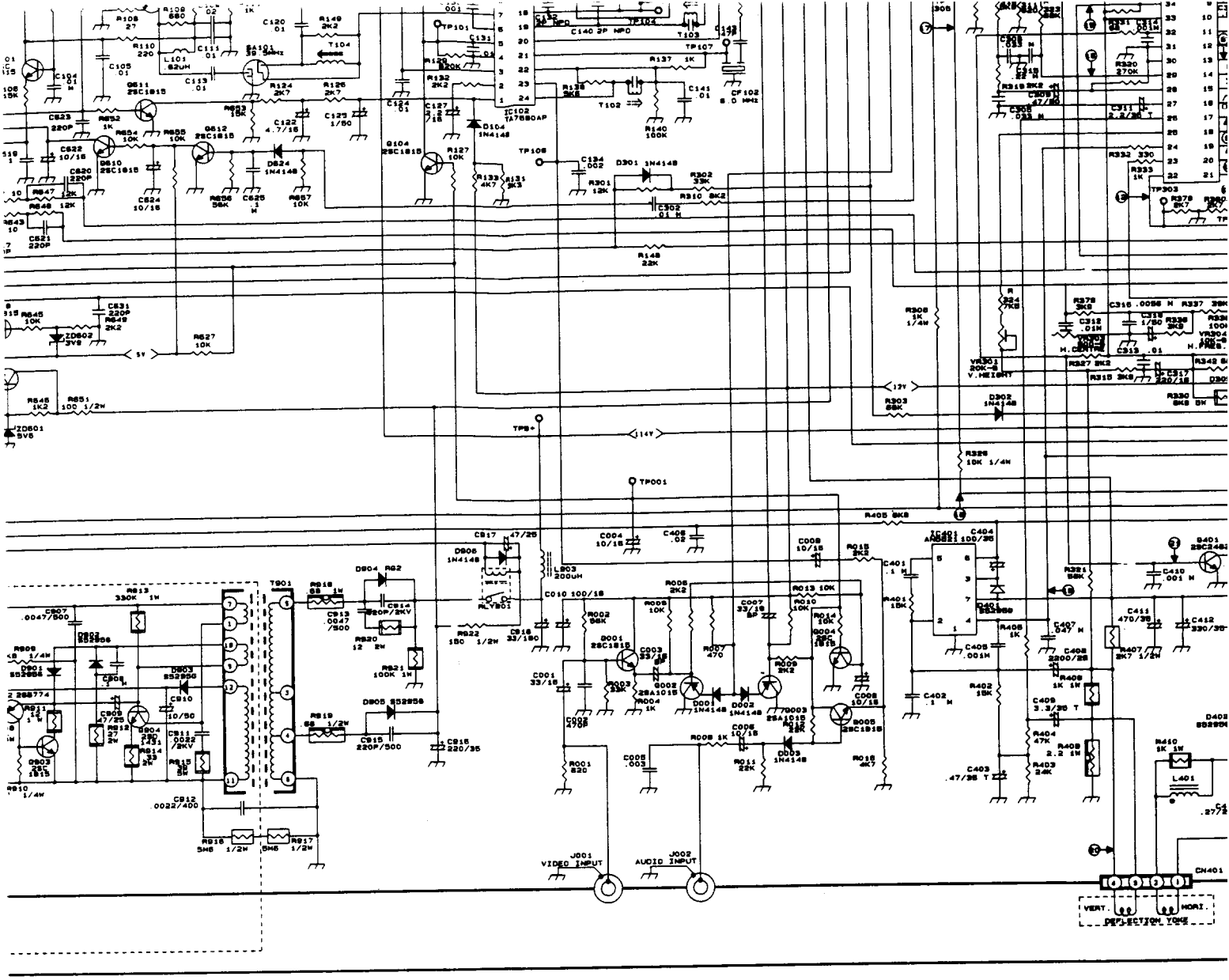


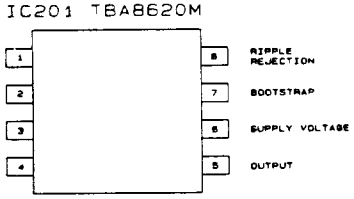



AC INPUT
CN801
CN802
CN803
F901 FUSE 2A/250V
S802 POWER SWITCH
THS01 1800
L901
T901
T902 DEGAUSSING COIL

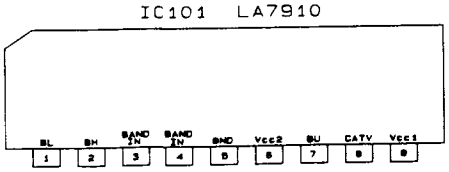

IC601
M34300N4-012SP
OUT
B
G
R
MPX SOUND
MPX SOUND
RESET
AFC IN
SD IN
VOLUME CONTROL
COLOR CONTROL
BRIGHT CONTROL
CONTRAST CONTROL
REMOTE
BAND OUT
VSS
VDD
OSC2
OSC1
HSYNS
VSYNC
TV/VIDEO/RGB
TV/VIDEO/RGB
XOUT
XIN
BAND OUT
AFT
POWER
PO3
PO2
PO1
PO0
P33
P32
P31
P30
IC201 TBA8620M
FREQUENCY COMPENSATION
GAIN SETTING
INPUT
GND
RIPPLE REJECTION
BOOTSTRAP
SUPPLY VOLTAGE
OUTPUT
IC701 M500560
VSS
TEST
RESET INPUT
OSC IN
OSC OUT
I/O PORT D D
I/O PORT E E0
I/O PORT E E1
I/O PORT E E2
I/O PORT E E3
VDD
C OUTPUT PORT C
F0 OUTPUT PORT F
F1 OUTPUT PORT F
F2 OUTPUT PORT F
F3 OUTPUT PORT F
F4 OUTPUT PORT F
F5 OUTPUT PORT F
F6 OUTPUT PORT F
F7 OUTPUT PORT F



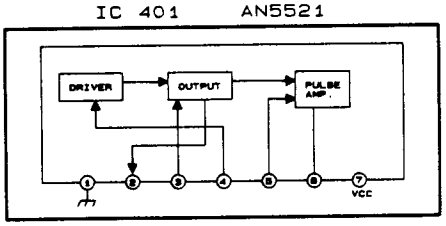
IC201 TBA8620M



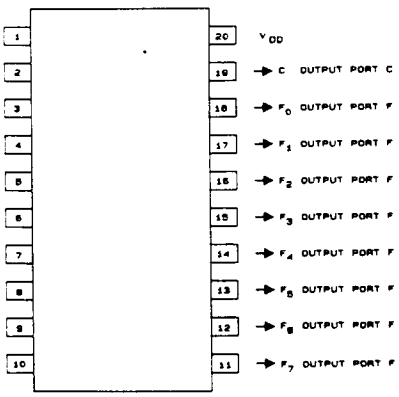
IC101 LA7910



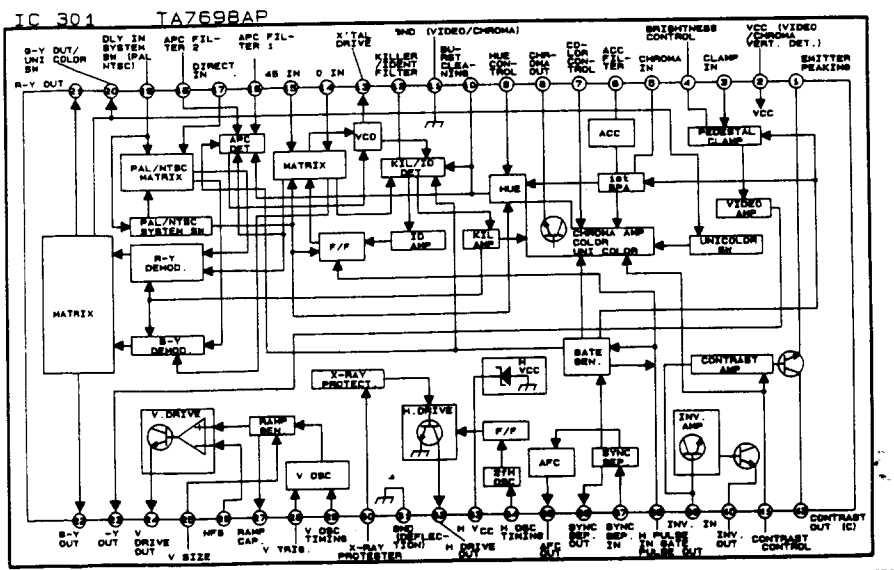
IC 401 AN5521

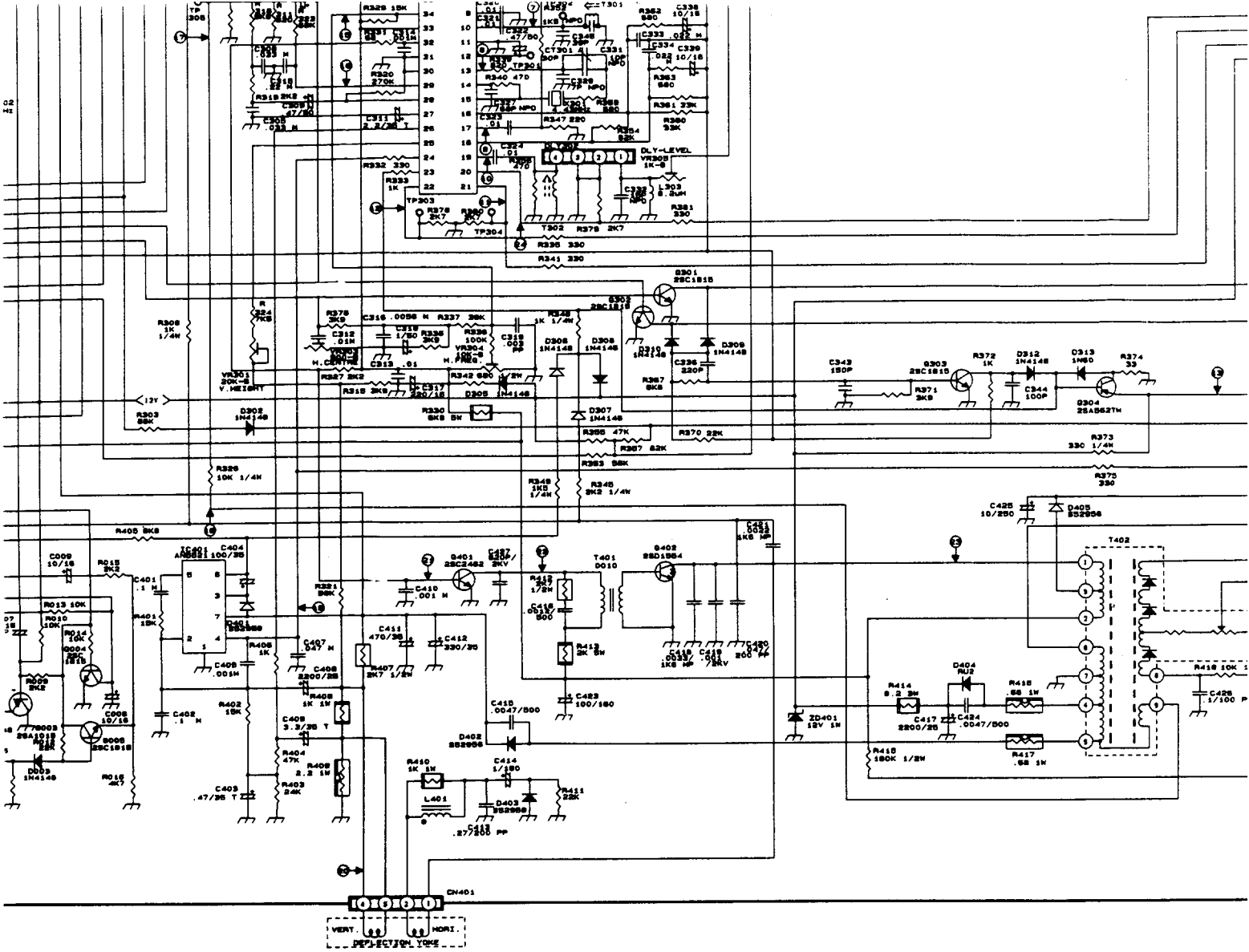


IC701 M500560

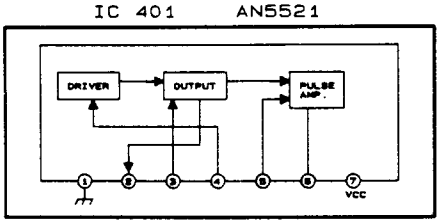


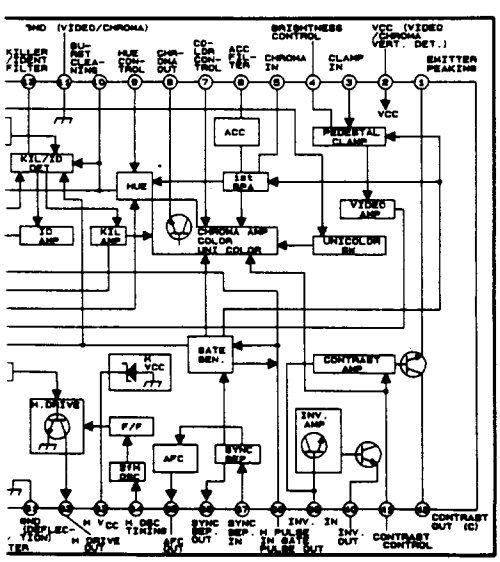
IC 301 TA7698AP



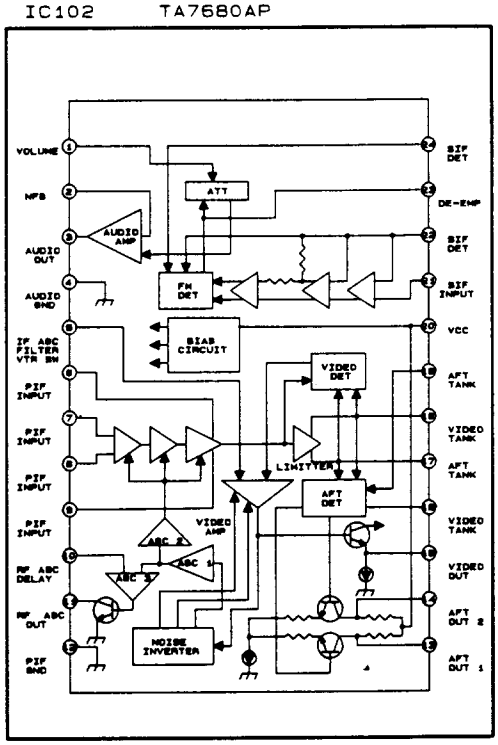


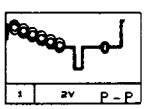
IC 401 AN5521

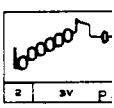


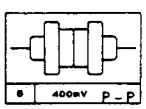


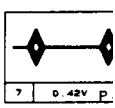
IC102 TA7680AP

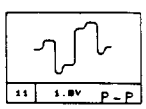


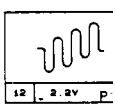


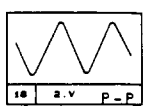


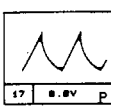


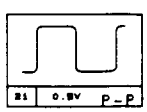


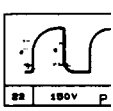


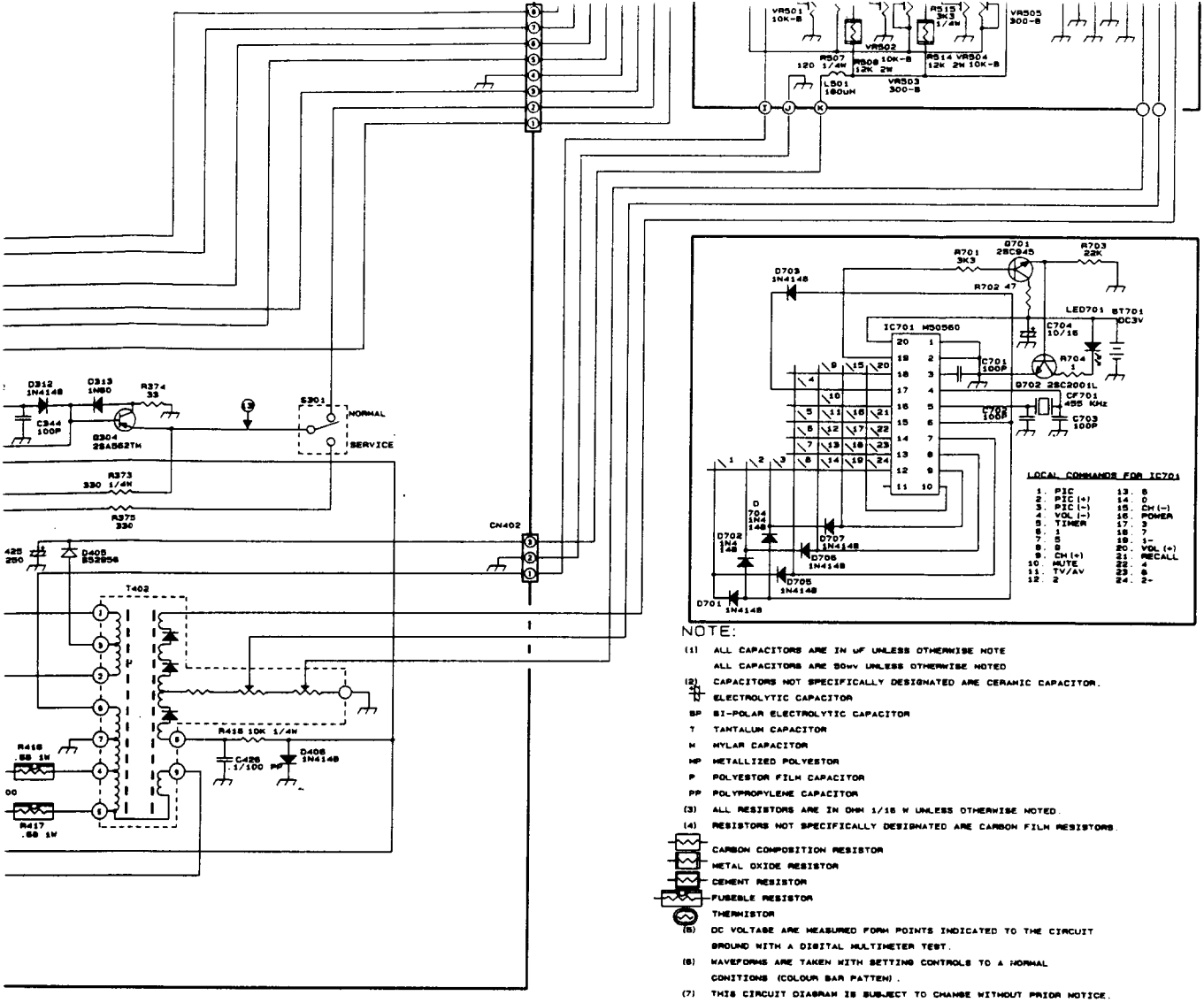












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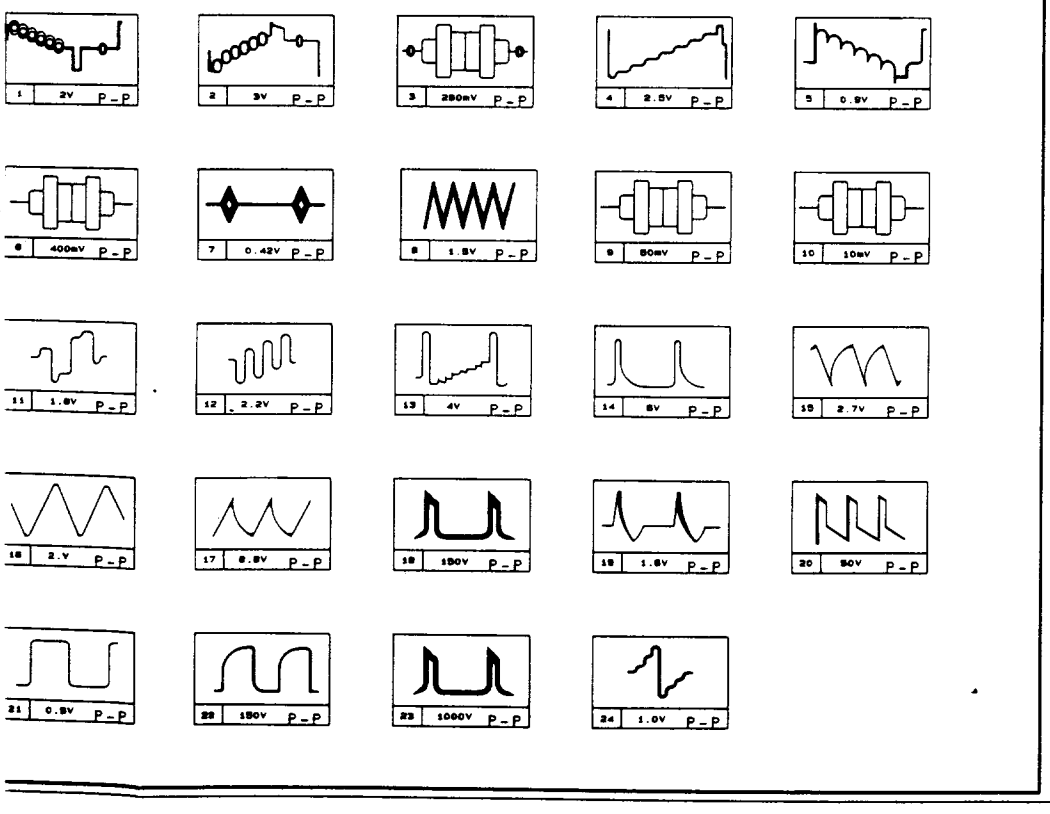
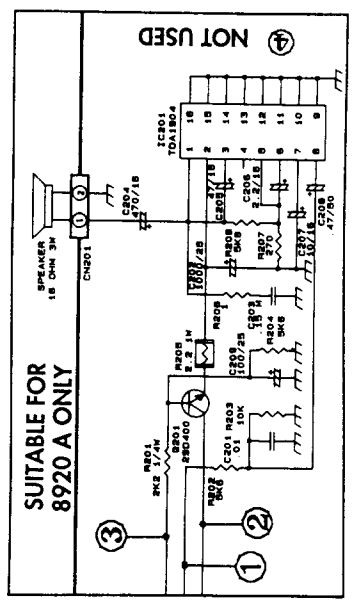
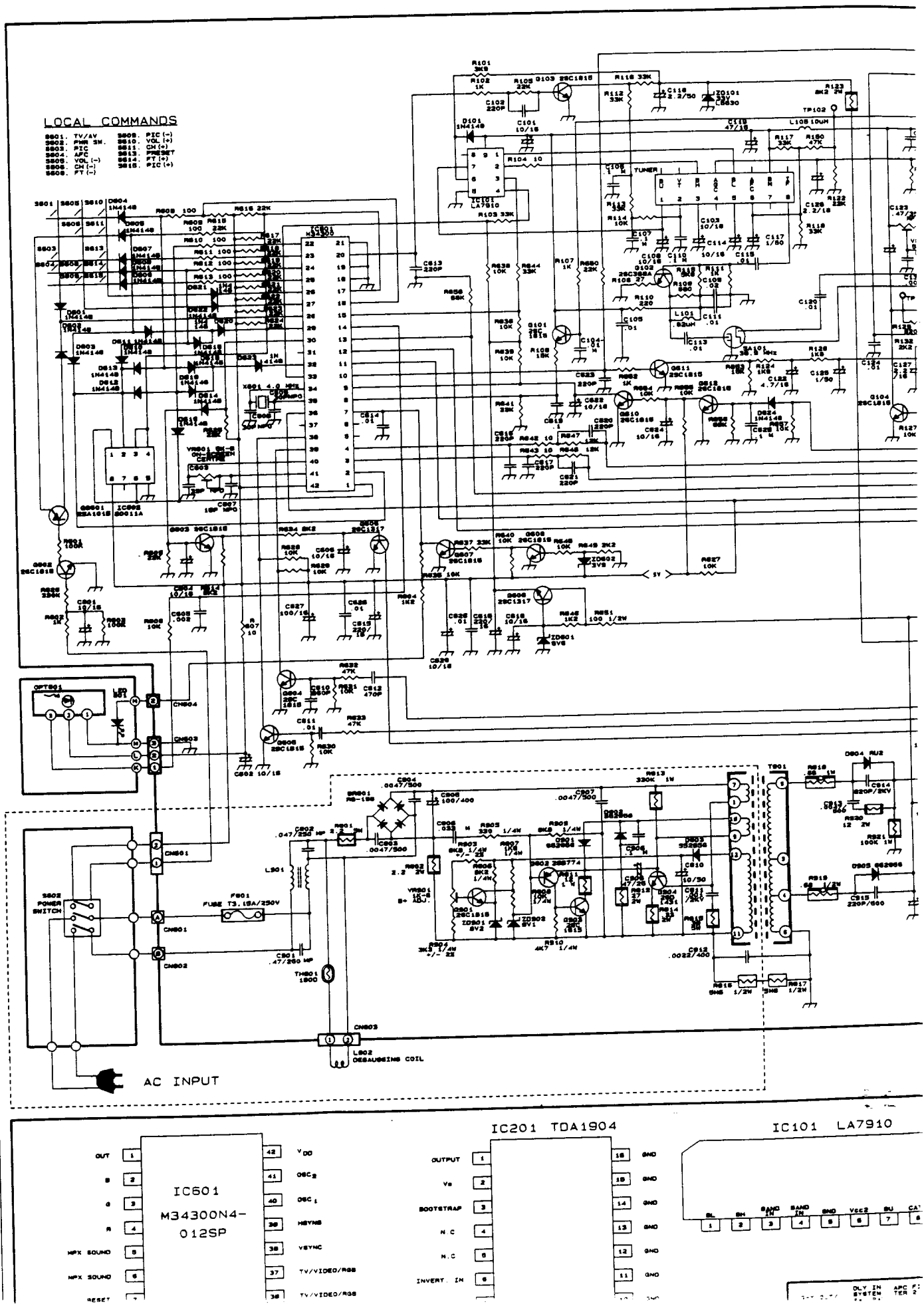
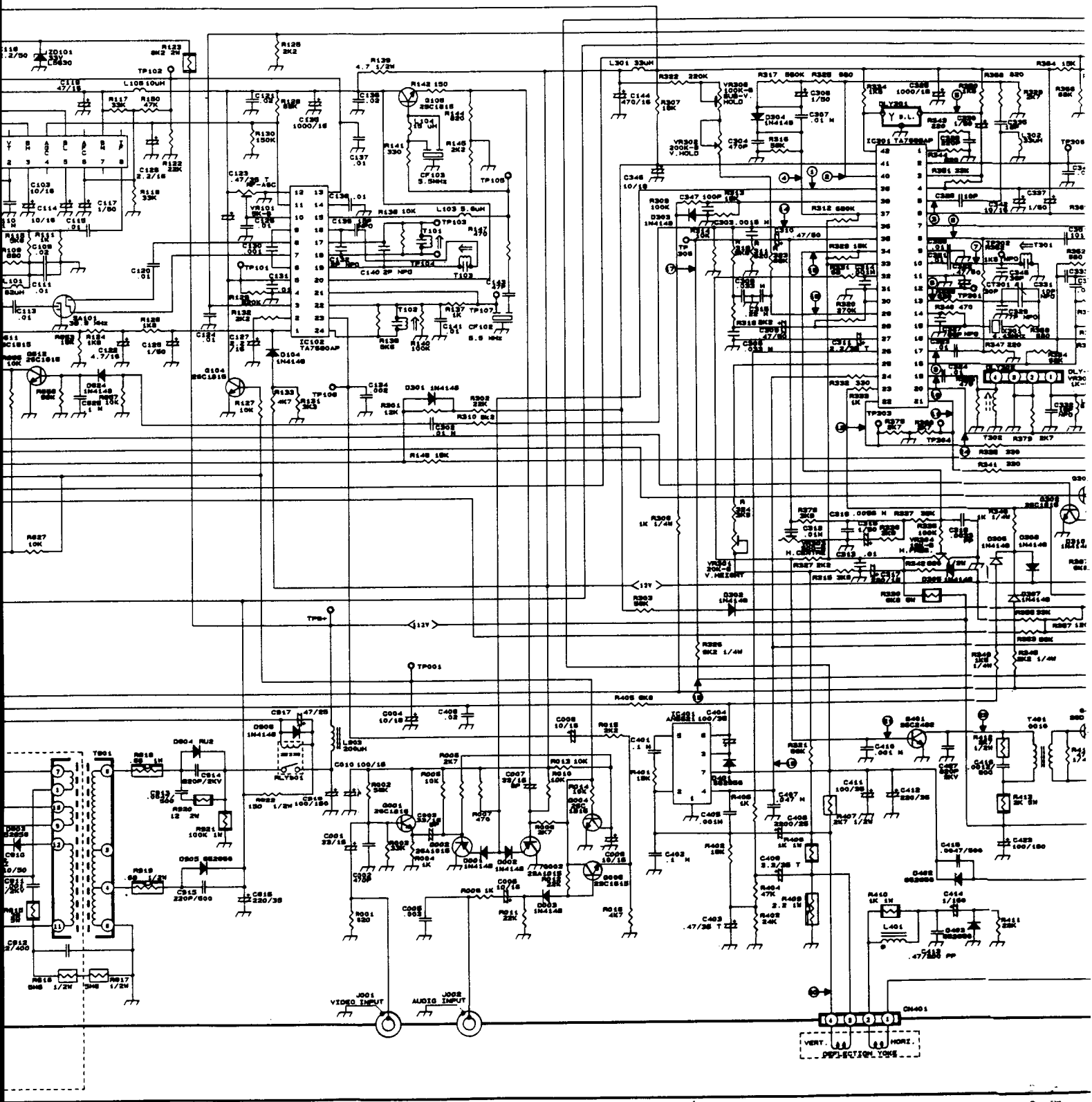
(8) ON THE SCHEMATIC SHOULD BE REPLAED WITH EXACT MANUFACTURER RECOMMENED PARTS.



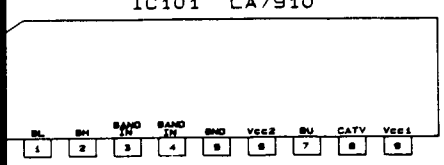


GREAT WALL FRANCE	
SHEMATIC DIAGRAM N°2	
PAL I WITH AV CONNECTOR	SUITABLE FOR MODELS 9213 9313

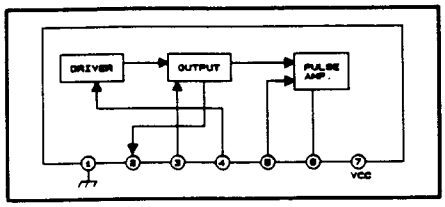

LOCAL COMMANDS
S601. TV/AV
S602. PWR SW.
S603. PIC
S604. AFC
S605. VOL (-)
S606. CH (-)
S607. PT (-)
S608. PIC (-)
S609. VOL (+)
S610. CH (+)
S611. PRESET
S613. PT (+)
S614. PIC (+)
IC601
M34300N4-
012SP
IC201 TDA1904
IC101 LA7910
AC INPUT
FUSE T3.15A/250V
POWER SWITCH
TUNER



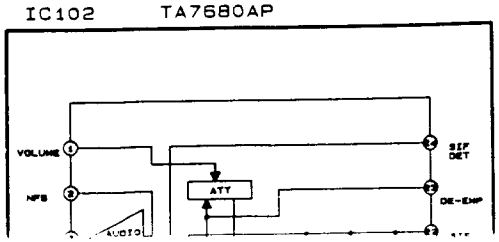
IC101 LA7910



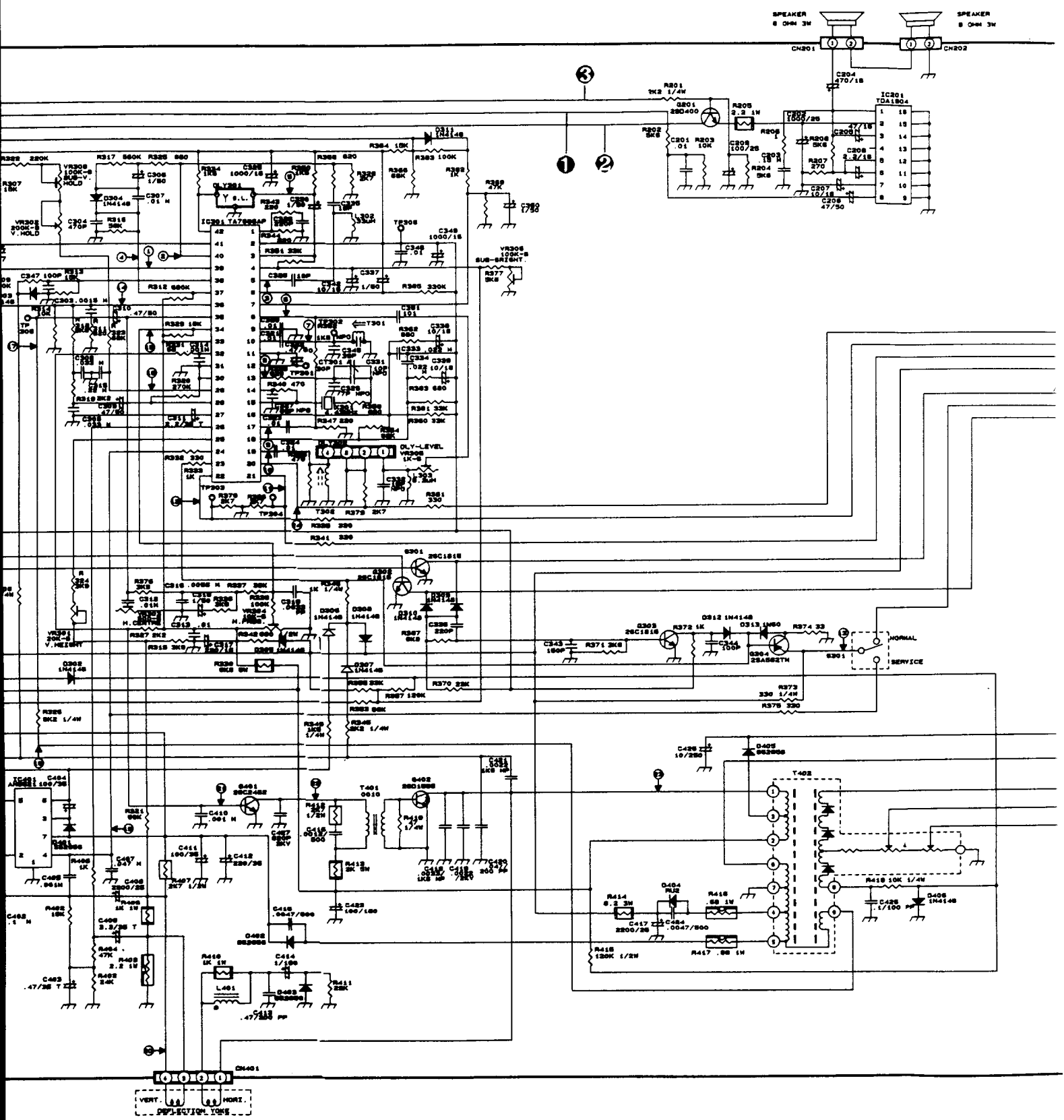
IC 401 AN5521

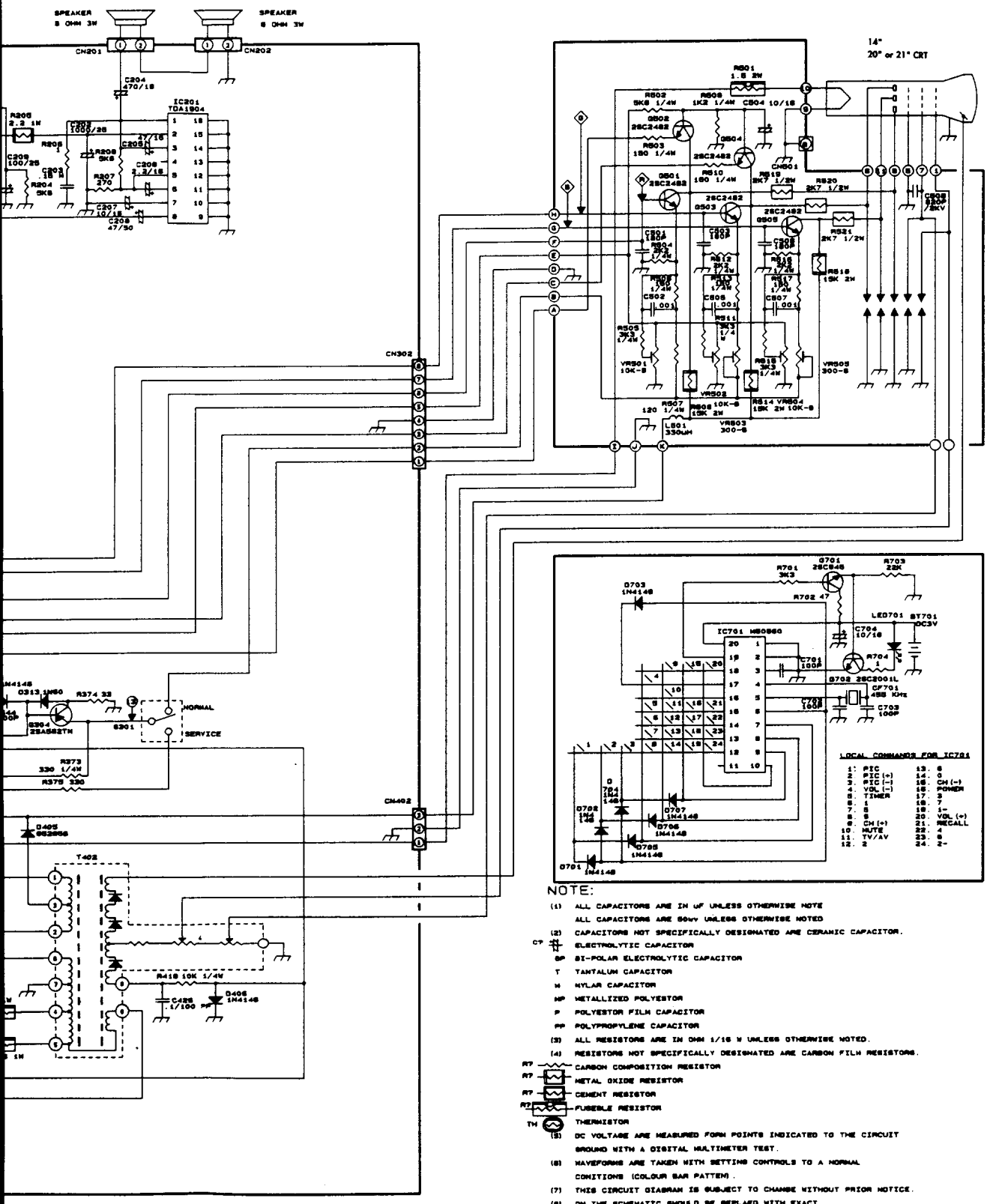


IC102 TA7680AP



IC301 TA7698AP


SPEAKER
8 OHM 3W
CN201
CN202
IC201
TDA1904
IC102
TA7680AP
VOLUME
ATT
SIF
DET
DE-EMP
VERT.
HORI.
DEFLECTION YOKE
NORMAL
SERVICE



NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED

(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.

CP # ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/16 W UNLESS OTHERWISE NOTED.

(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.

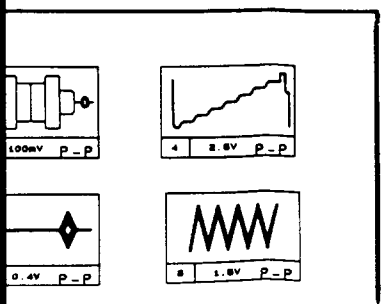
R? CARBON COMPOSITION RESISTOR
R? METAL OXIDE RESISTOR
R? CEMENT RESISTOR
R? FUSEBLE RESISTOR
TH THERMISTOR

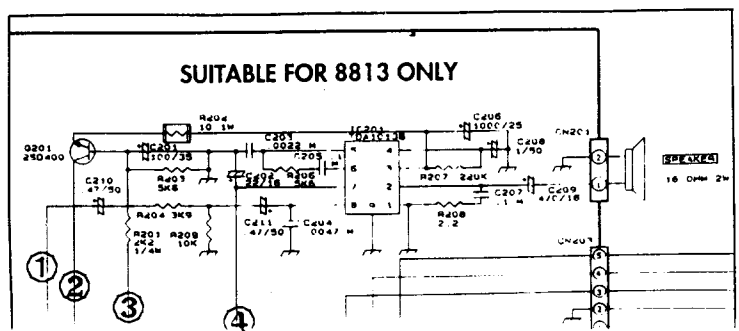
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.

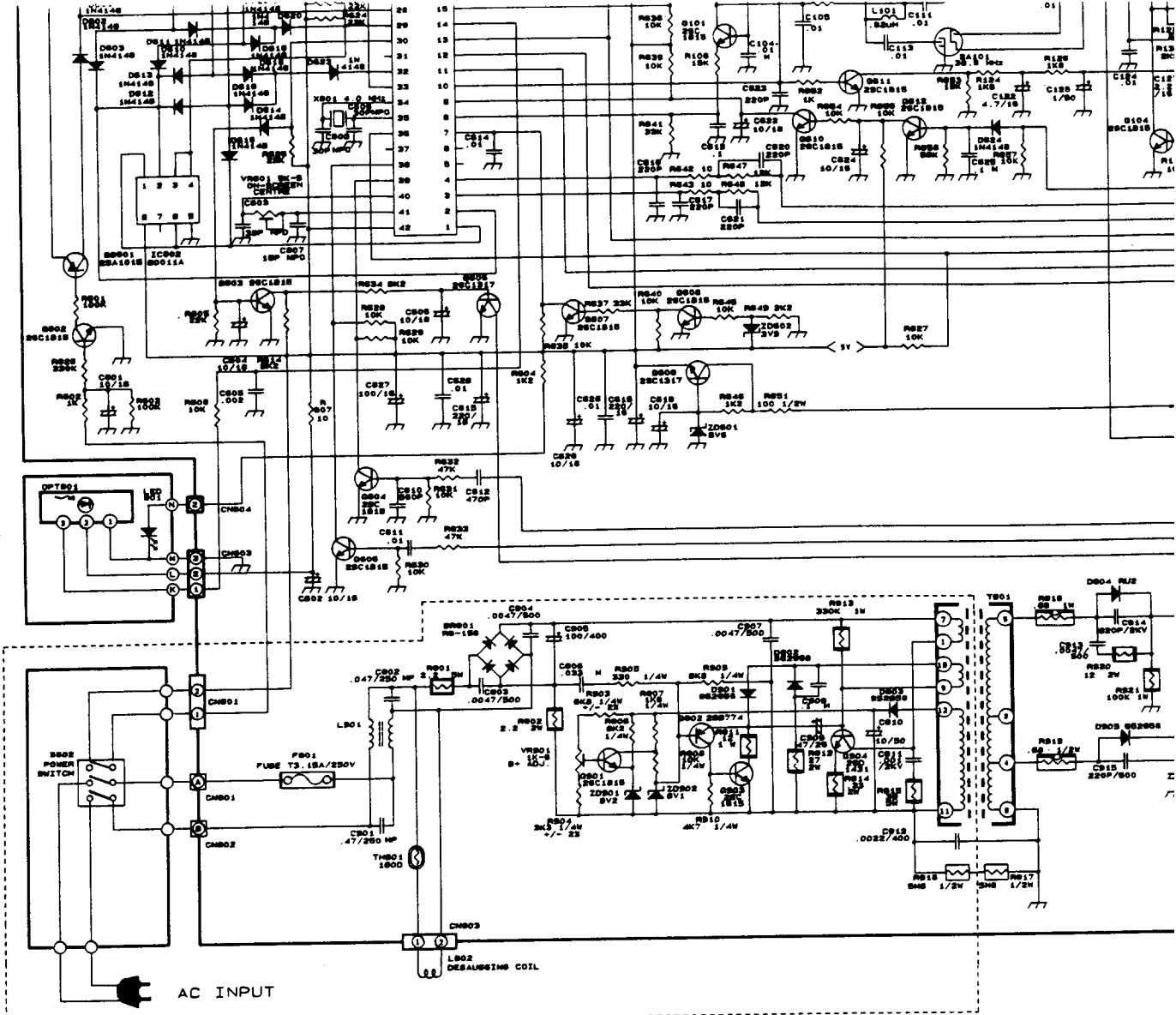
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEM).

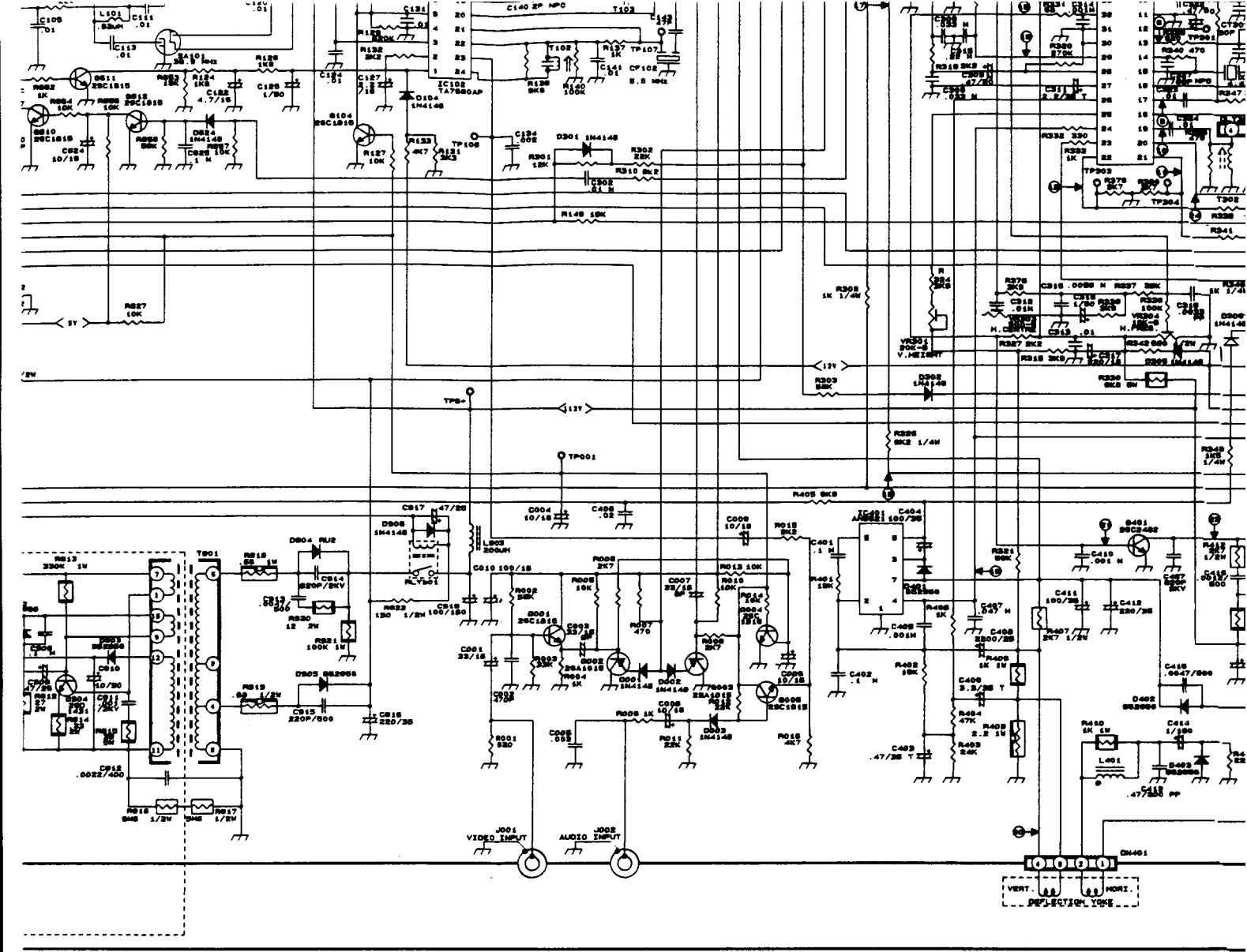
(7) THIS CIRCUIT DIABRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

(8) ON THE SCHEMATIC SHOULD BE REPLACED WITH EXACT MANUFACTURER RECOMMENED PARTS.

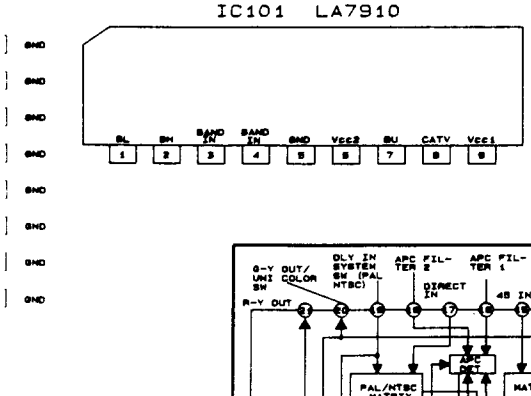




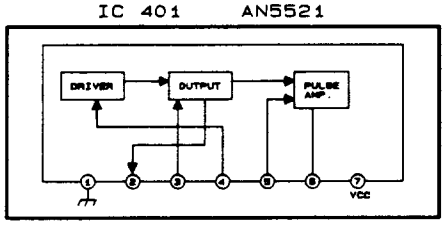

AC INPUT
CN801
CN802
CN803
CN804
F801
FUSE T3.15A/250V
S802
POWER SWITCH
L902
DEGAUSSING COIL
TH801
1800
T801
IC601
M34300N4-012SP
IC201 TDA1904
IC101 LA7910
IC701 M500560
OUTPUT
Vs
BOOTSTRAP
N.C
INVERT. IN
SVR
NON INVERT. INPUT
GND
OUT
R
G
B
MPX SOUND
RESET
AFC IN
SD IN
VOLUME CONTROL
COLOR CONTROL
BRIGHT CONTROL
CONTRAST CONTROL
REMOTE
BAND OUT
TEST
VSS
HSYNC
VSYNC
TV/VIDEO/RGB
BAND OUT
AFT
POWER
Vss
RESET INPUT
OSC IN
OSC OUT
I/O PORT D
I/O PORT E
OUTPUT PORT C
OUTPUT PORT F
PAL/NTSC MATRIX
R-Y DEMOD.
B-Y DEMOD.
MATRIX
V. DRIVE



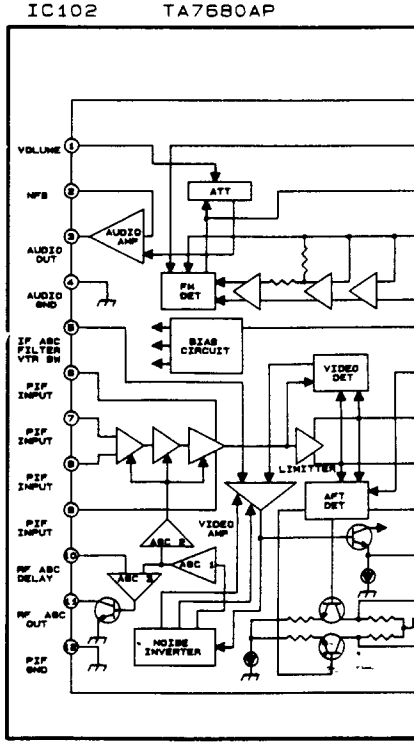
IC101 LA7910



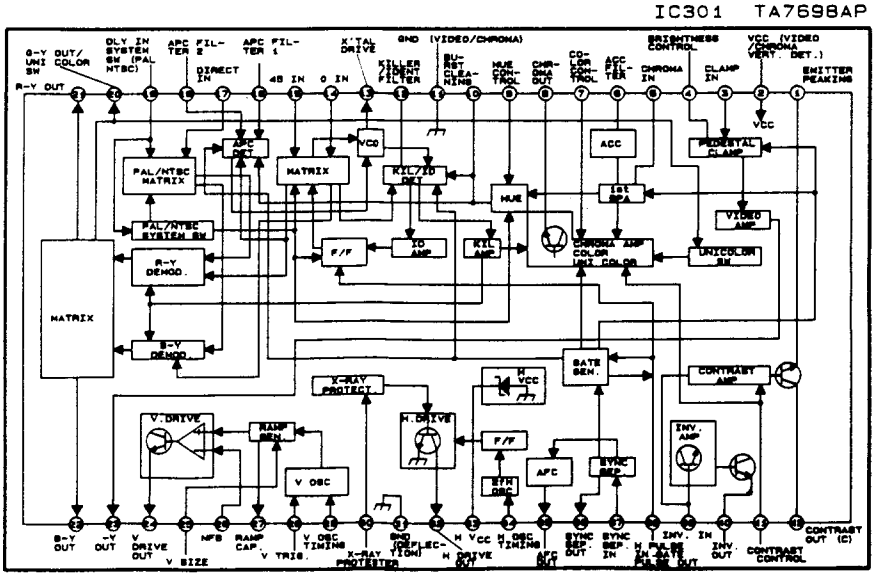
IC 401 AN5521



IC102 TA7680AP



IC301 TA7698AP



V_{DD}

C OUTPUT PORT C

F_0 OUTPUT PORT F

F_1 OUTPUT PORT F

F_2 OUTPUT PORT F

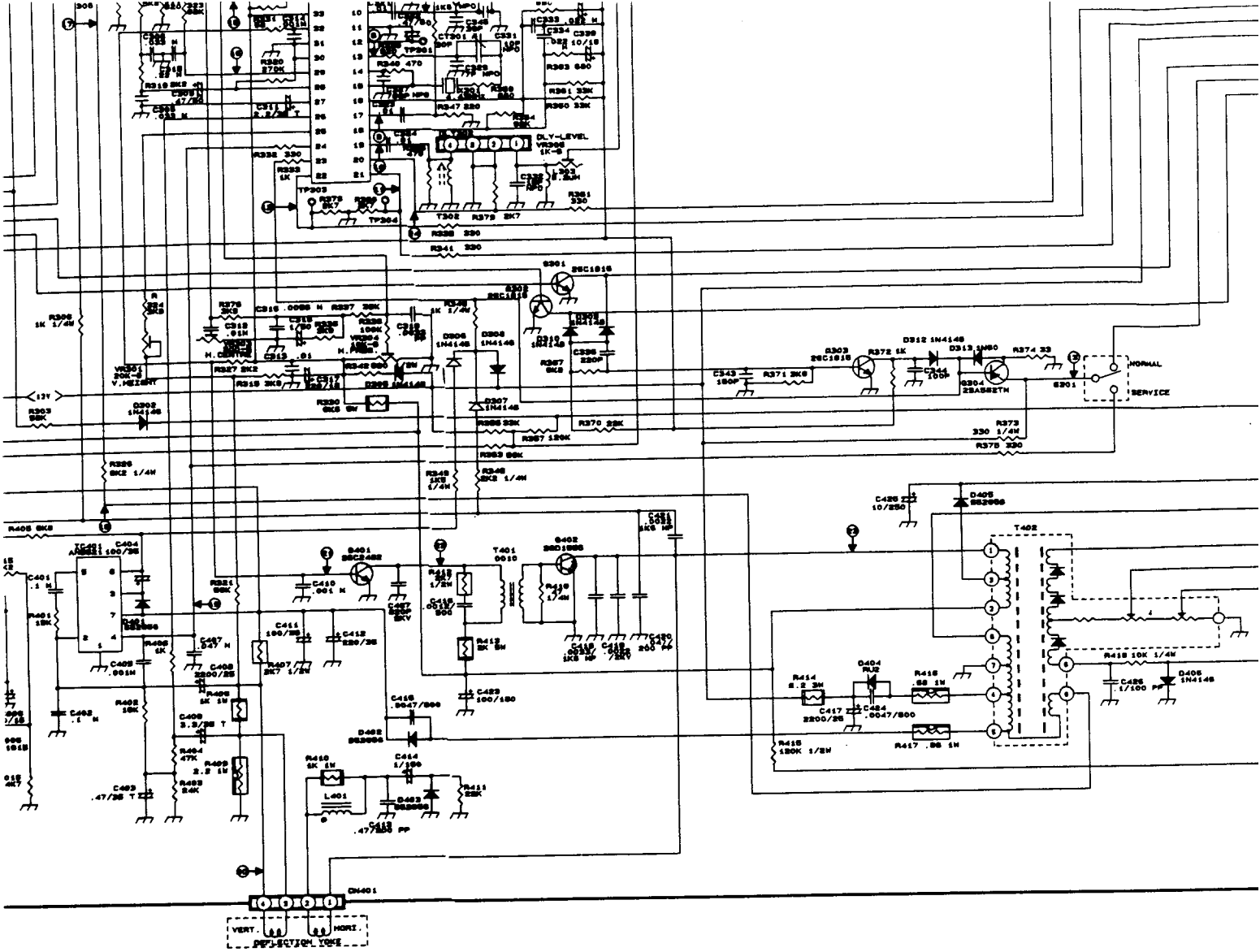
F_3 OUTPUT PORT F

F_4 OUTPUT PORT F

F_5 OUTPUT PORT F

F_6 OUTPUT PORT F

F_7 OUTPUT PORT F



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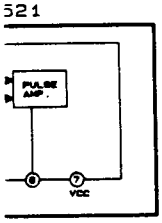
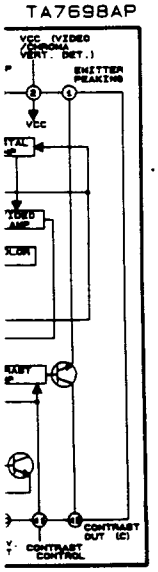
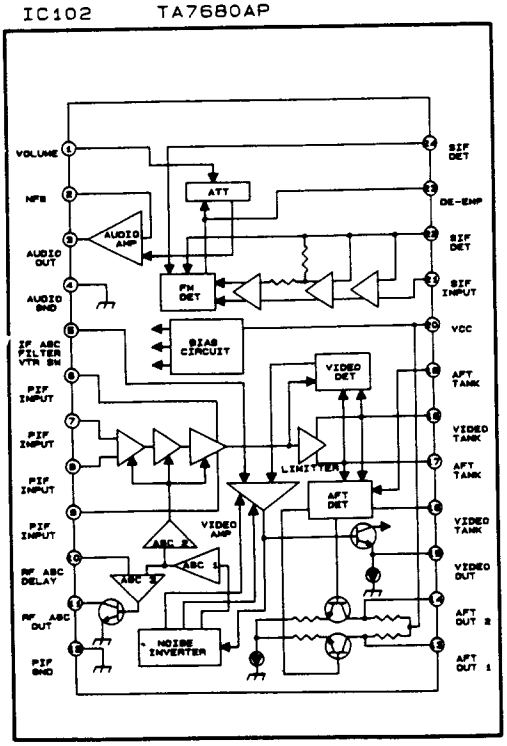
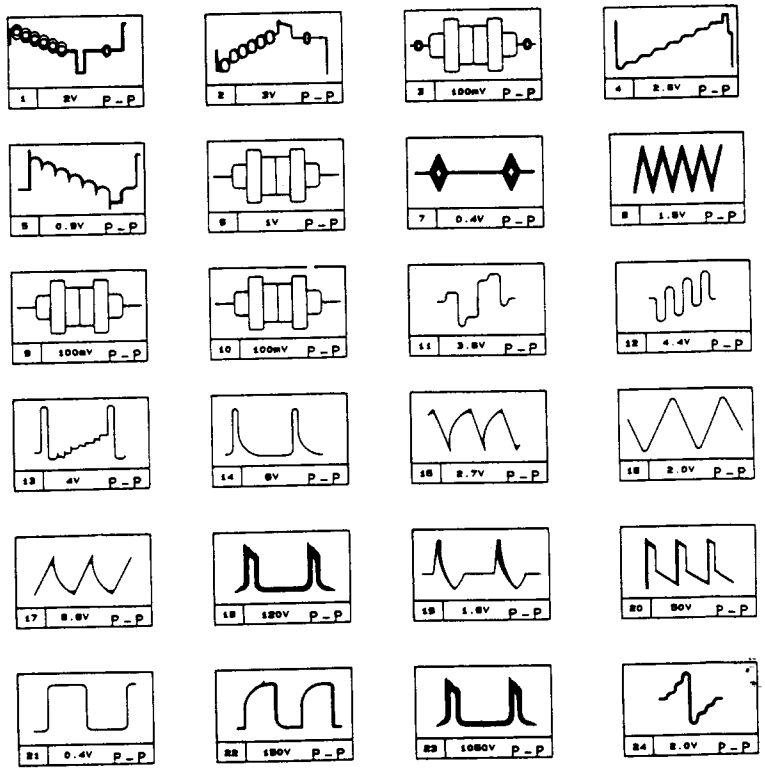


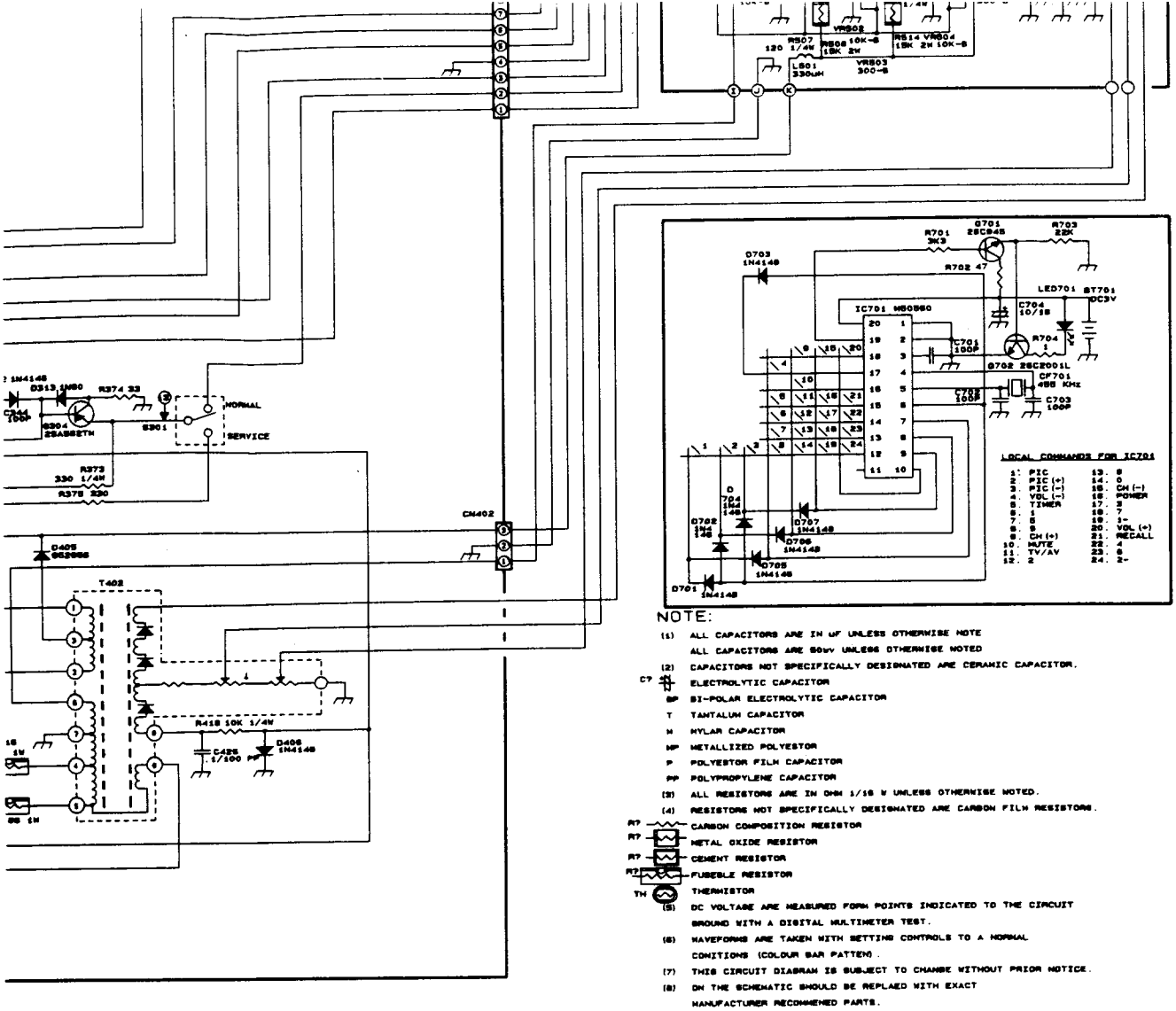
TA7698AP



IC102 TA7680AP







NOTE:

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C? ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/1S W UNLESS OTHERWISE NOTED.

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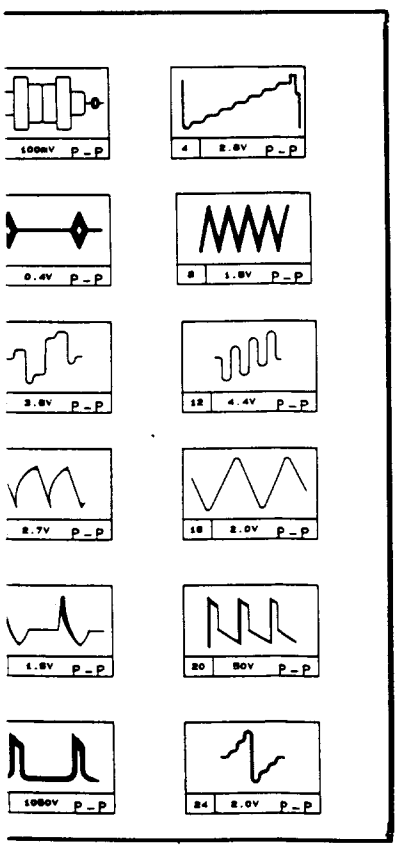
R? METAL OXIDE RESISTOR
R? CEMENT RESISTOR
R? FUSEBLE RESISTOR
TH THERMISTOR

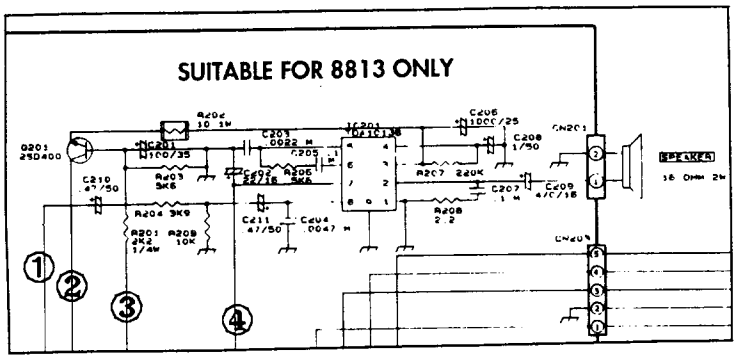
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.

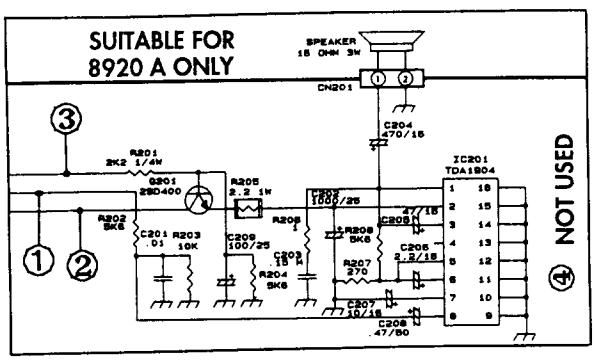
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEM) .

(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

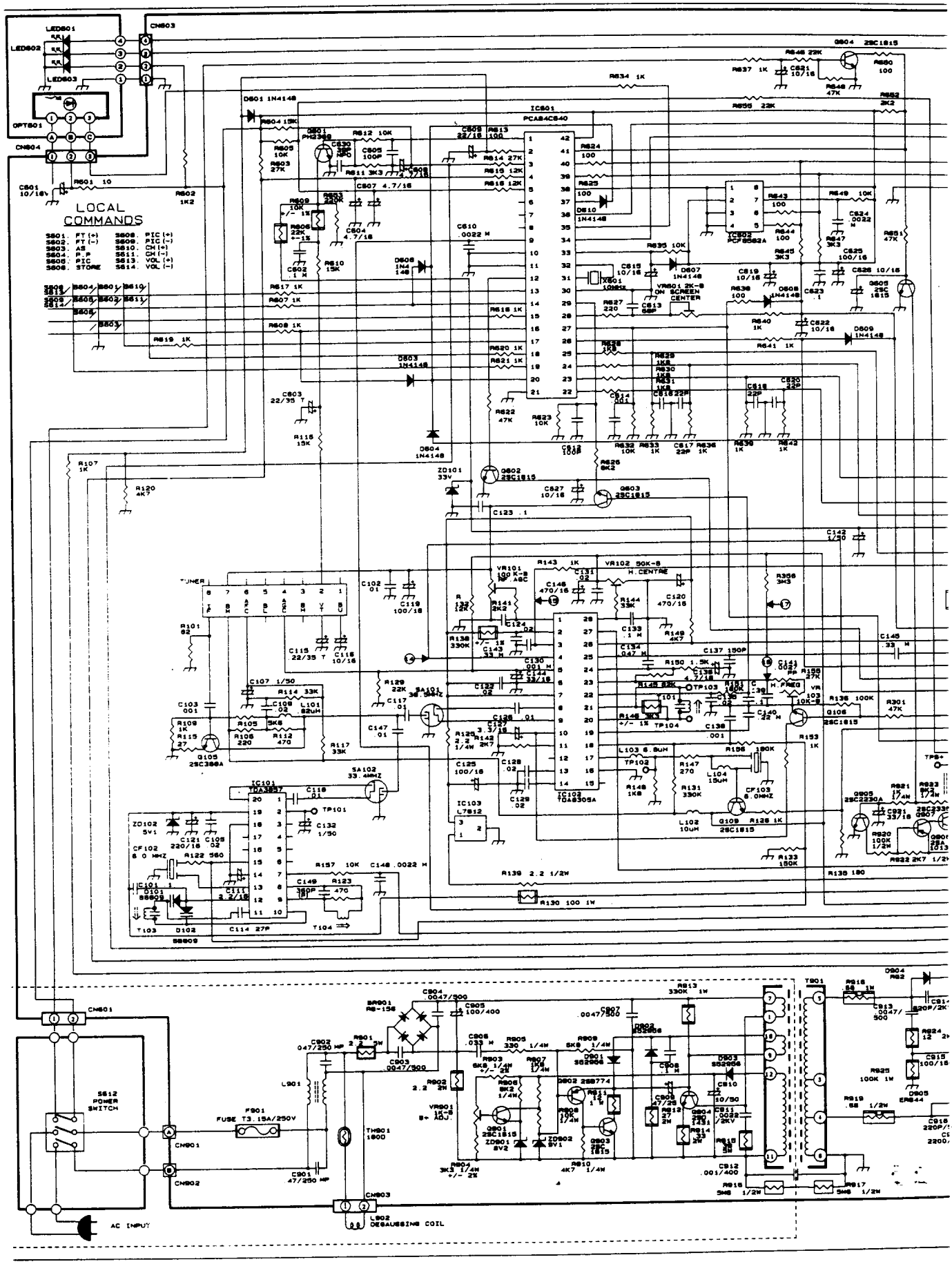
(8) ON THE SCHEMATIC SHOULD BE REPLACED WITH EXACT MANUFACTURER RECOMMENED PARTS.







GREAT WALL FRANCE	
SHEMATIC DIAGRAM N°7	
PAL BG WITH AV CONNECTOR :	SUITABLE FOR MODELS 8920 B - 9220 - 8821 8813 - 8920 A


LOCAL
COMMANDS
S601: FT (+)
S602: FT (-)
S603: AS
S604: P.P
S605: PIC
S606: STORE
S607: PIC (+)
S608: PIC (-)
S609: CH (+)
S610: CH (-)
S611: VOL (+)
S612: VOL (-)
LED601
LED602
LED603
OPT601
CN803
CN804
IC801
PCA84C640
IC802
PCF8582A
TUNER
IC101
TDA3857
IC103
TDA8305A
IC103
L7812
SA101
38.9MHz
SA102
33.4MHz
CF102
6.0 MHz
CF103
6.0MHz
VR101
100 K-B
MP. ADC
VR102 50K-B
H.CENTRE
VR501 2K-B
ON SCREEN
CENTER
Q105
2SC3804
Q106
2SC1815
Q109
2SC1815
Q801
2SC1815
Q802
2SC1815
Q803
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Q804
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Q805
2SC1815
Q806
2SC2230A
Q807
2SC3331
Q808
2SA1013
ZD101
33V
ZD102
5V1
ZD801
8V2
ZD802
8V1
D101
S8809
D102
S8809
D801
S82006
D802
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D804
RB2
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ER844
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FS901
FUSE T3.15A/250V
AC INPUT
LF902
DEGAUSSING COIL
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R601 10
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R603 27K
R604 15K
R605 10K
R606 22K +-1%
R607 1K
R608 1K
R609 10K +/- 1%
R610 15K
R611 3K3
R612 10K
R613 100
R614 27K
R615 12K
R616 12K
R617 1K
R618 1K
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R623 10K
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R627 220
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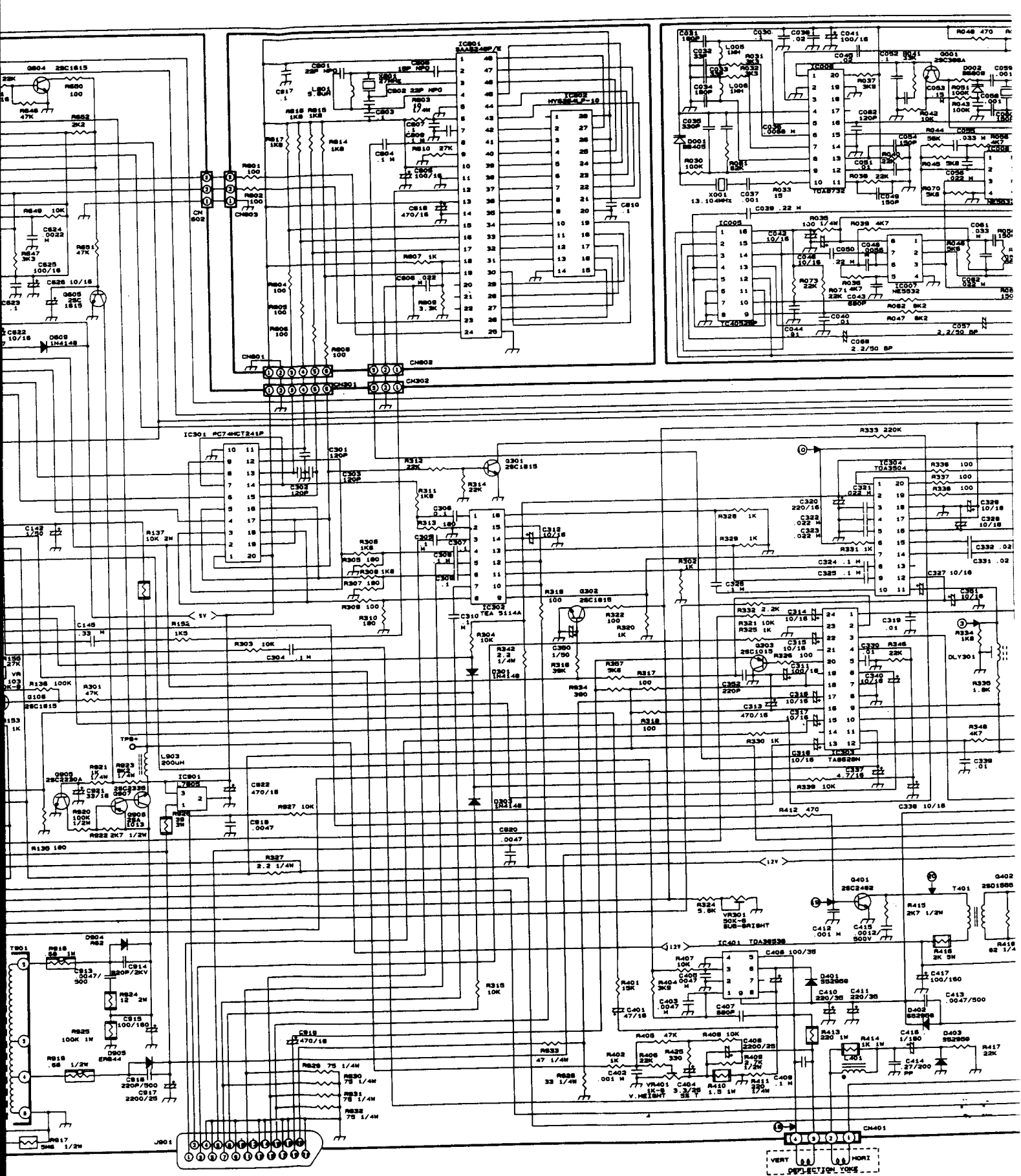
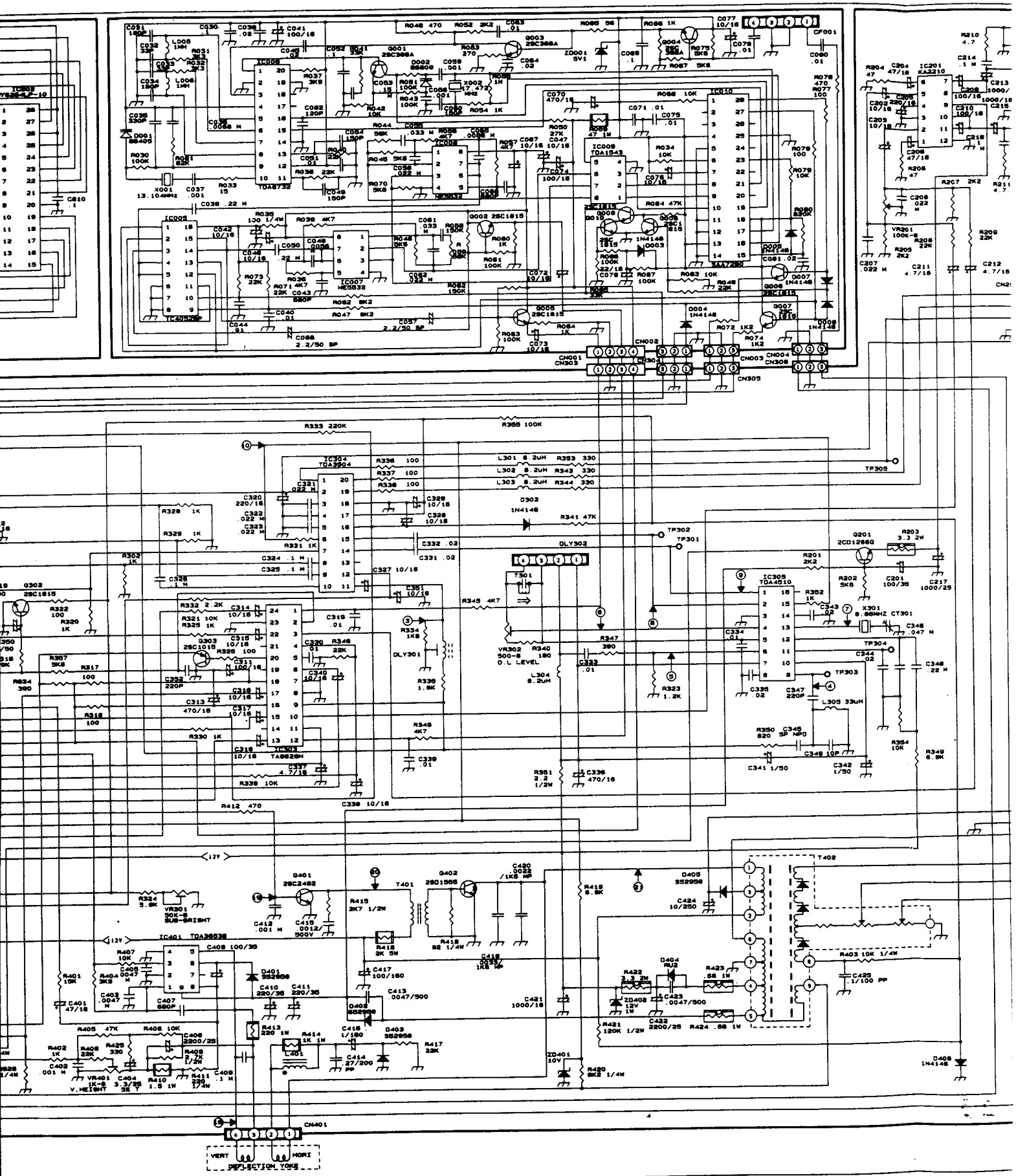
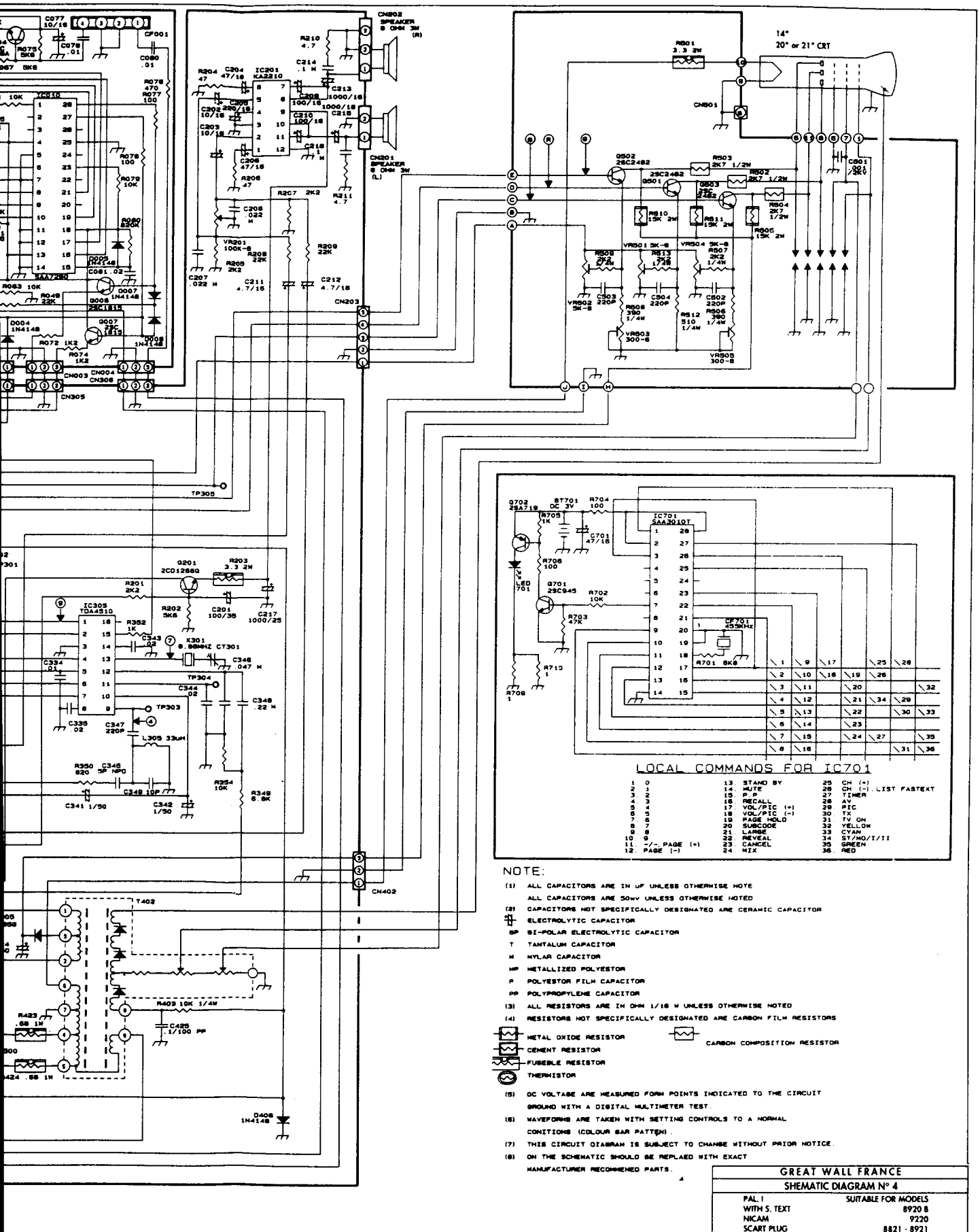

IC801 SAA5246P/E
IC802 HY6264LP-10
IC803 TDA8732
IC804 TDA3504
IC805 TDA8828N
IC806 NE5532
IC807 TC4052BP
IC301 PC74HCT241P
IC302 TEA 5114A
IC401 TDA3653B
IC901 L7805
CN801
CN802
CN803
CN301
CN302
CN401
J901
TP01
TP5+
VERT
HORI
DEFLECTION YOKE
VR301 50K-B SUB-BRIGHT
VR401 1K-B V.HEIGHT
X001 13.104MHz
L903 200uH
T401
DLY301
12V
5V

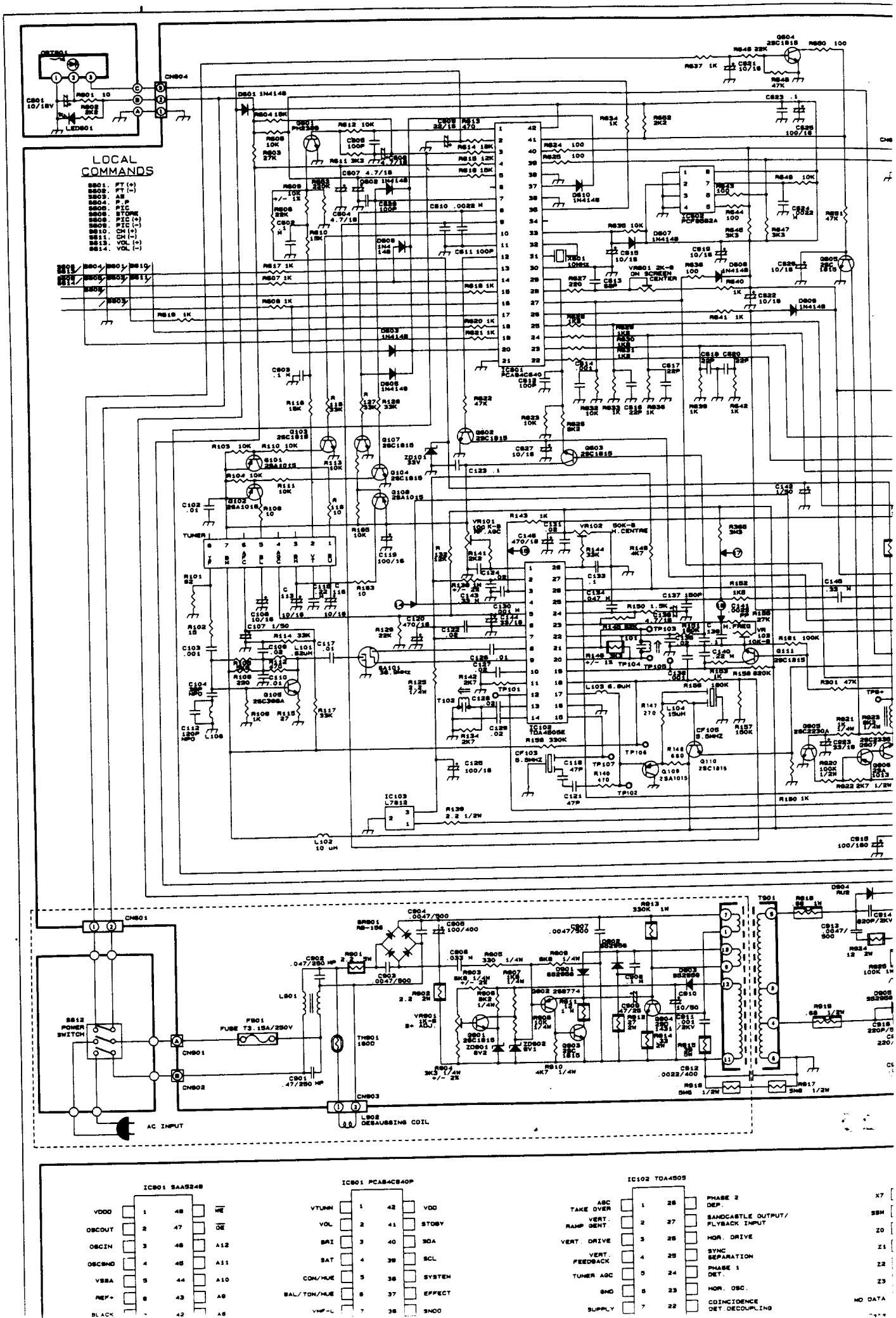

IC008 TDA8732
IC009 TDA1543
IC010
IC002 NE5532
IC003 NE5532
IC004 TDA8752
IC005 TDA8752B
IC007 NE5532
IC304 TDA3504
IC305 TDA4510
IC401 TDA3653B
IC201 KA2210
X001 13.104MHz
X003 17.472 MHz
X301 8.86MHz CT301
VR301 50K-B SUB-BRIGHT
VR302 500-B D.L LEVEL
VR401 1K-B V.HEIGHT
VR201 100K-B
T301
T401
T402
DLY301
DLY302
CN001 CN303
CN002 CN304
CN003 CN004 CN306
CN305
CN401
VERT DEFLECTION YOKE HORI
12V
TP301 TP302 TP303 TP304 TP305

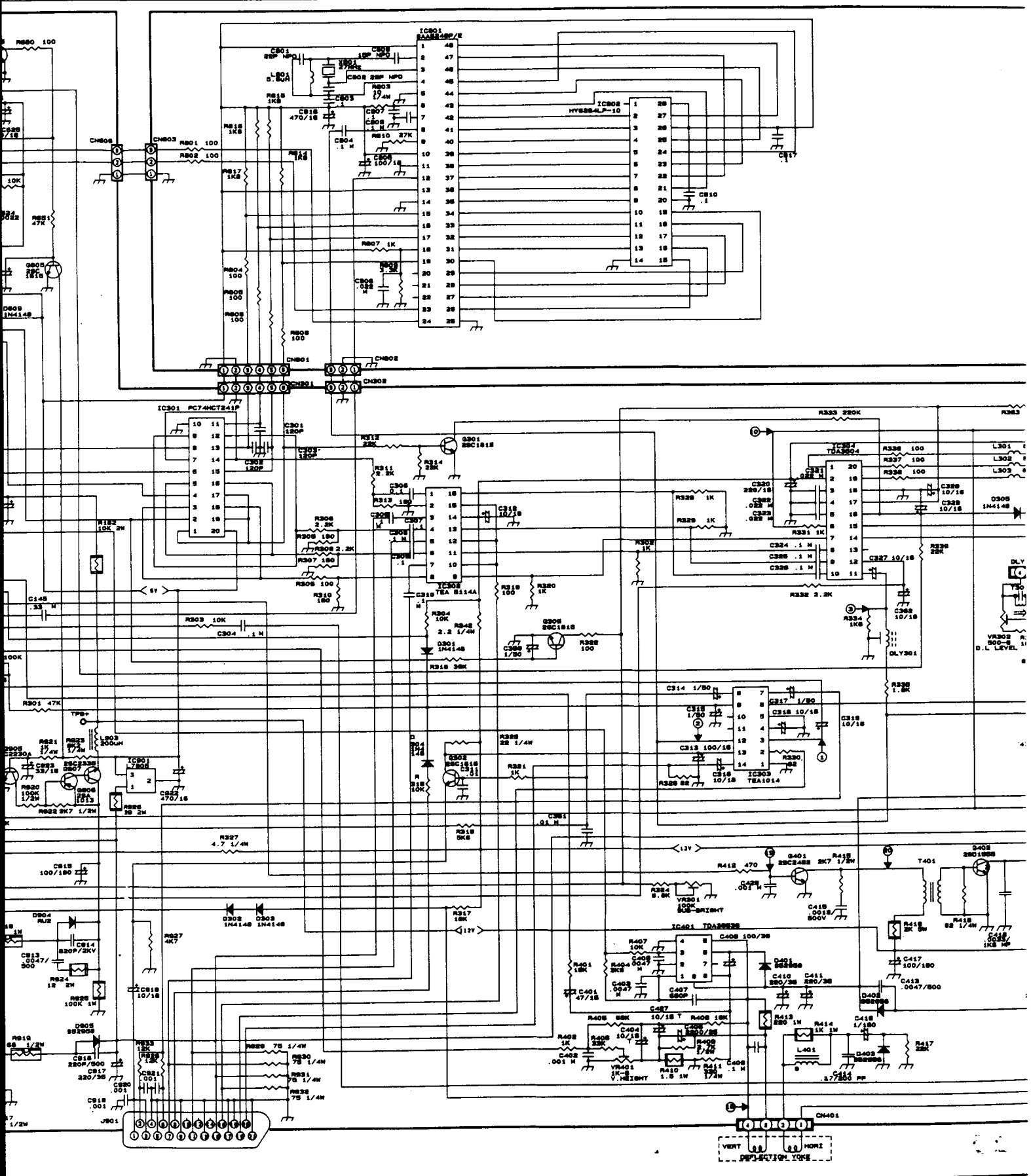


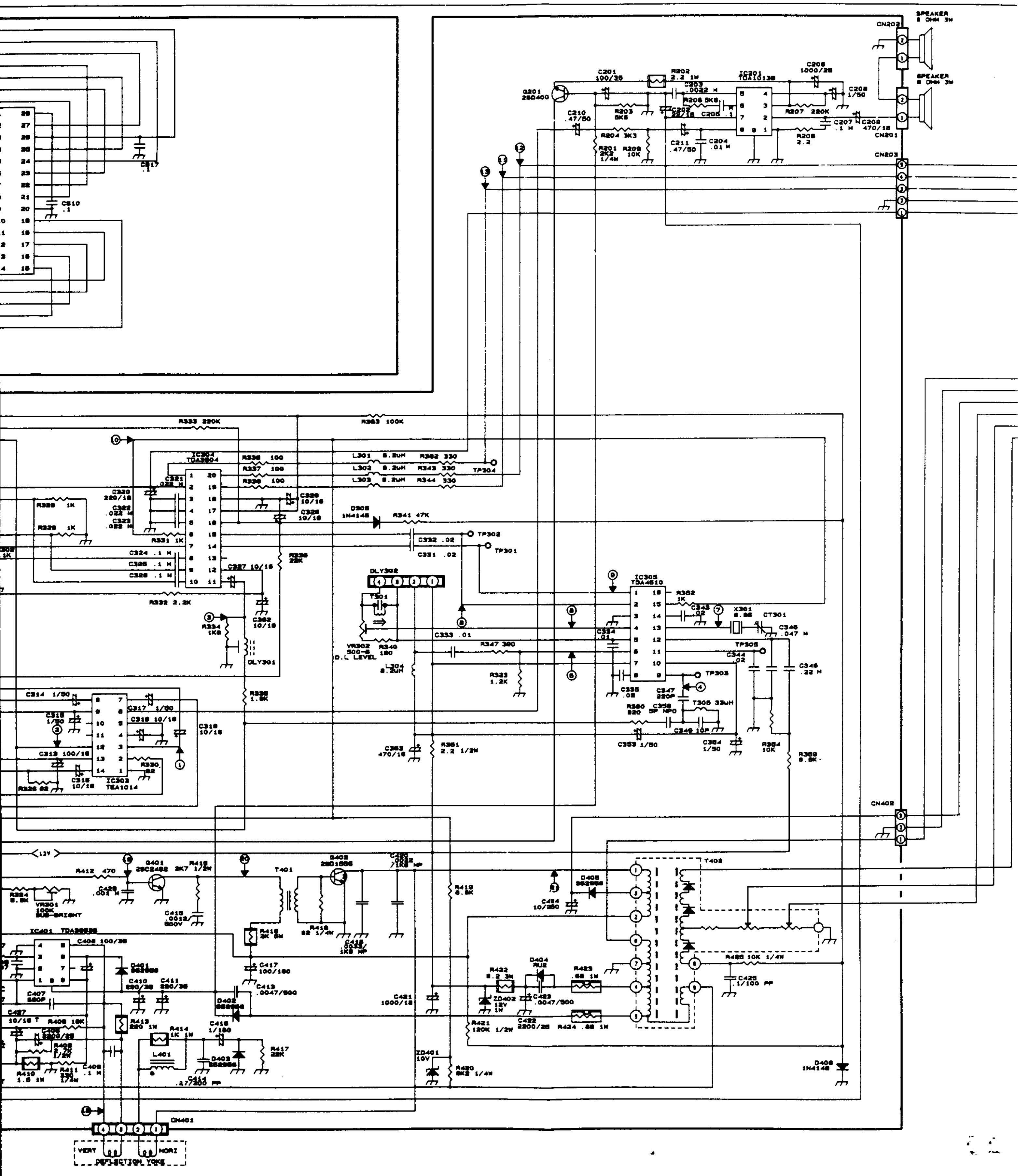
NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED
(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR
ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR
(3) ALL RESISTORS ARE IN OHM 1/16 W UNLESS OTHERWISE NOTED
(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS
METAL OXIDE RESISTOR
CARBON COMPOSITION RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).
(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.
(8) ON THE SCHEMATIC SHOULD BE REPLACED WITH EXACT MANUFACTURER RECOMMENED PARTS.

GREAT WALL FRANCE	
SHEMATIC DIAGRAM N° 4	
PAL I	SUITABLE FOR MODELS
WITH S. TEXT	8920 B
NICAM	9220
SCART PLUG	8821 - 8921


LOCAL COMMANDS
SB01: FT (+)
SB02: FT (-)
SB03: AS
SB04: P-P
SB05: PIC
SB06: STORE
SB09: PIC (+)
SB08: PIC (-)
SB10: CH (+)
SB11: CH (-)
SB13: VOL (+)
SB14: VOL (-)
CN804
CN801
CN802
CN803
SB12 POWER SWITCH
FS01 FUSE T3.15A/250V
TM801 180D
LS01
LS02 DEGAUSSING COIL
AC INPUT
TUNER
IC801 SAA5248
IC801 PCA84C840P
IC102 TDA4505
IC103 L7812
IC102 TDA4505
VDDD
OSCOUT
OSCIN
OSCGND
VSSA
REF+
BLACK
VTUNN
VOL
BRI
SAT
CON/HUE
BAL/TON/HUE
VHF-L
VDD
STDBY
SDA
SCL
SYSTEM
EFFECT
SNDO
TAKE OVER
RAMP GENT.
VERT. DRIVE
VERT. FEEDBACK
TUNER AGC
SND
SUPPLY
PHASE 2 DEP.
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET.
HOR. OSC.
COINCIDENCE DET. DECOUPLING


IC701 SAA3010
IC802 HYS264LP
IC304 TDA3804
IC301 PC74HCT24P
IC801 SAA5240P/E
IC808 HYS264LP-10
IC301 PC74HCT241P
IC302 TDA3804
IC303 TEA1014
IC304 TEA 5114A
IC401 TDA2595B
IC901 7808
CN401
VERT
HORI
DEFLECTION YOKE
VR301 100K SUB-BRIGHT
VR401 1K-B V.HEIGHT
DLY301
VR302 500-B D.L LEVEL
T401
L801 6.5MA
L802 200UH
L803 200UH
L401
JB01


SPEAKER 8 OHM 3W
CN202
SPEAKER 8 OHM 3W
CN201
CN203
Q201 2SD400
C201 100/35
R202 2.2 1W
C203 .0022 M
IC201 TDA1013B
C206 1000/25
C208 1/50
C210 .47/50
R203 5K6
R206 5K6
C202 22/16
C205 .1
R207 220K
C207 .1 M
C209 470/16
R204 3K3
R201 2K2 1/4W
R209 10K
C211 .47/50
C204 .01 M
R208 2.2
C817 .1
C810 .1
R333 220K
R363 100K
IC304 TDA3504
R336 100
R337 100
R338 100
L301 8.2uH
L302 8.2uH
L303 8.2uH
R362 330
R343 330
R344 330
TP304
C321 .022 M
C320 220/16
C322 .022 M
C323 .022 M
R328 1K
R329 1K
R331 1K
C329 10/16
C326 10/16
D305 1N4148
R341 47K
C332 .02
TP302
C331 .02
TP301
C324 .1 M
C325 .1 M
C328 .1 M
C327 10/16
R339 22K
R332 2.2K
C362 10/16
R334 1K8
DLY301
DLY302
T301
VR302 500-B D.L LEVEL
R340 180
C333 .01
R347 390
L304 8.2uH
R323 1.2K
IC305 TDA4510
R362 1K
C343 .02
X301 8.86
CT301
C345 .047 M
C334 .01
TP305
C344 .02
C346 .22 M
TP303
C335 .02
C347 220P
R360 820
C358 5P NPO
T305 33uH
C349 10P
C353 1/50
C354 1/50
R354 10K
R359 6.8K
C314 1/50
C317 1/50
C315 1/50
C318 10/16
C319 10/16
R336 1.8K
C313 100/16
R330 82
C316 10/16
IC303 TEA1014
R326 82
C363 470/16
R361 2.2 1/2W
CN402
12V
R412 470
Q401 2SC2482
R415 2K7 1/2W
C426 .001 M
R324 6.8K
VR301 100K SUB-BRIGHT
C415 .0012/500V
T401
Q402 2SD1556
C420 .0022 /1K6 MP
R419 6.8K
IC401 TDA2653B
C408 100/35
R416 2K 5W
R418 82 1/4W
C418 .0033/1K6 MP
D405 3S2959
C424 10/250
T402
D401
C410 220/35
C411 220/35
C417 100/160
C413 .0047/500
C407 560P
D402
C427 10/16 T
R409 18K
C405 2200/25
R408 2.7K 1/2W
R413 220 1W
R414 1K 1W
C416 1/160
R417 22K
L401
D403 3S2959
C414 .47/200 PP
R410 1.5 1W
R411 330 1/4W
C406 .1 M
R422 8.2 3W
D404 RU2
R423 .68 1W
ZD402 12V 1W
C423 .0047/500
C421 1000/16
R421 120K 1/2W
C422 2200/25
R424 .68 1W
R425 10K 1/4W
C425 .1/100 PP
ZD401 10V
R420 8K2 1/4W
D406 1N4148
CN401
VERT
HORI
DEFLECTION YOKE

	GREEN OUTPUT
	RED OUTPUT
	GND (0 V)
	BRI. CONTROL INPUT
	CONTRAST CONTROL INPUT
	COLOR DIFFERENCE INPUT- (B-Y)
	COLOR DIFFERENCE INPUT- (R-Y)

IC301 PC74HCT24P

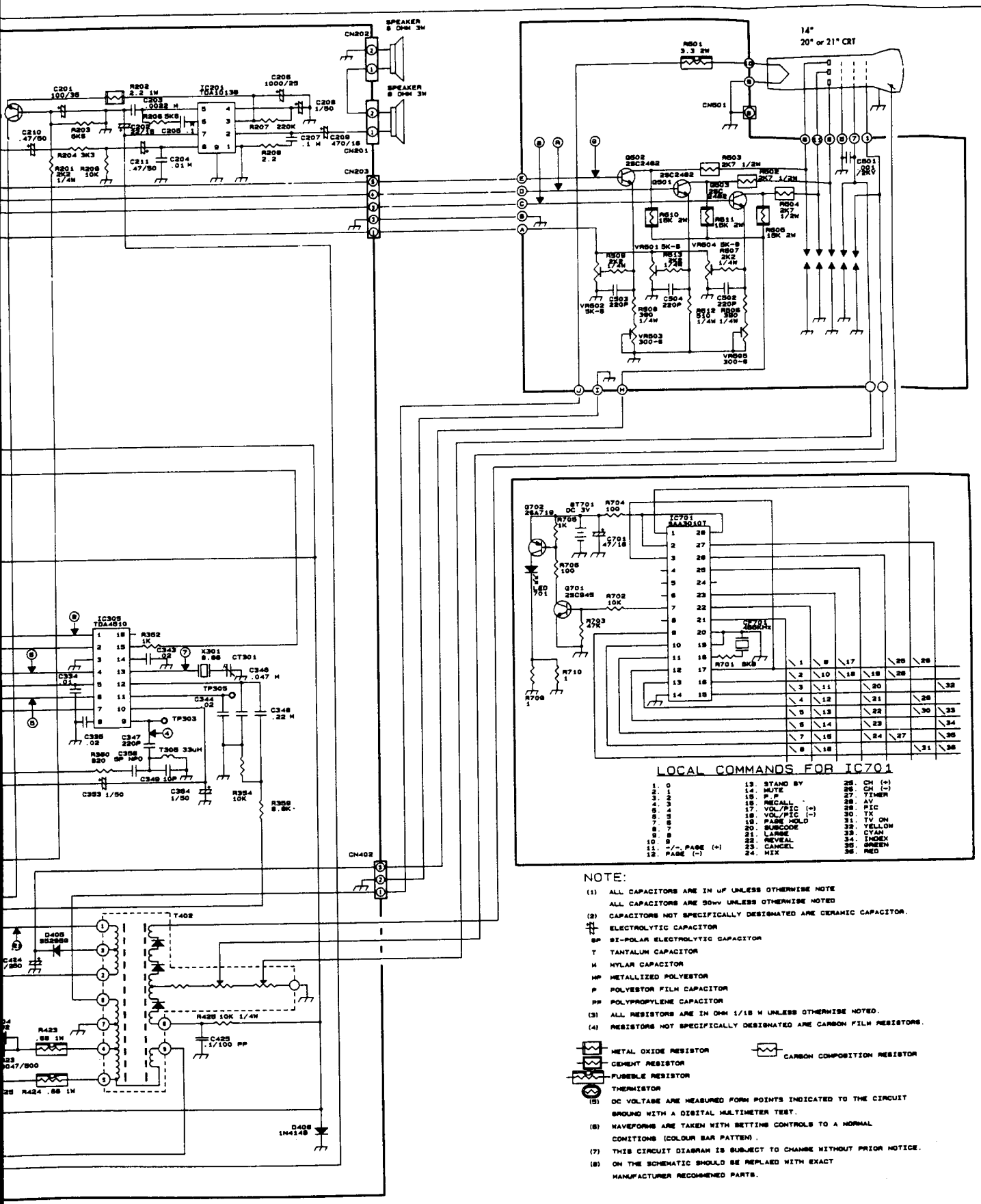
1OE	1	20	Vcc
1A0	2	19	2OE
2Y0	3	18	1Y0
1A1	4	17	2A0
2Y1	5	16	1Y1
1A2	6	15	2A1
2Y2	7	14	1Y2

IC305 TDA4510

-(R-Y)	1	16	COLOR SWITCHING
-(B-Y)	2	15	SANDCASTLE PULSE
GND	3	14	IDENTIFICATION
DELAY LINE IN	4	13	OSC
DC	5	12	PLL
DELAY LINE OUT	6	11	COLOR ON
VP	7	10	ACC

IC302 TEA5114A

R1 INPUT	1	16	R OUTPUT
GND	2	15	FB_R INPUT
R2 INPUT	3	14	Vcc
G1 INPUT	4	13	G OUTPUT
G2 INPUT	5	12	FB_G INPUT
B1 INPUT	6	11	B OUTPUT
B2 INPUT	7	10	FB_2-FB_3 INPUT



LOCAL COMMANDS FOR IC701

1. 0	13. STAND BY	25. CH (+)
2. 1	14. MUTE	26. CH (-)
3. 2	15. P.P	27. TIMER
4. 3	16. RECALL	28. AV
5. 4	17. VOL/PIC (+)	29. PIC
6. 5	18. VOL/PIC (-)	30. TV
7. 6	19. PAGE HOLD	31. TV ON
8. 7	20. SUBCODE	32. YELLOW
9. 8	21. LARGE	33. CYAN
10. 9	22. REVEAL	34. INDEX
11. -/-. PAGE (+)	23. CANCEL	35. GREEN
12. PAGE (-)	24. MIX	36. RED

NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED

(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.
ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/18 W UNLESS OTHERWISE NOTED.

(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.

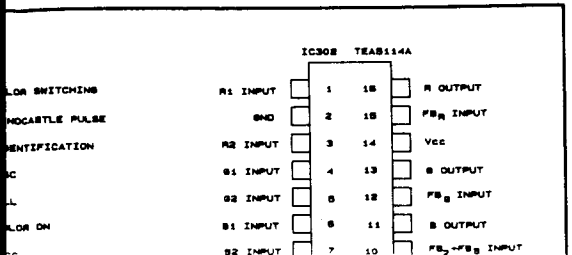
METAL OXIDE RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR
CARBON COMPOSITION RESISTOR

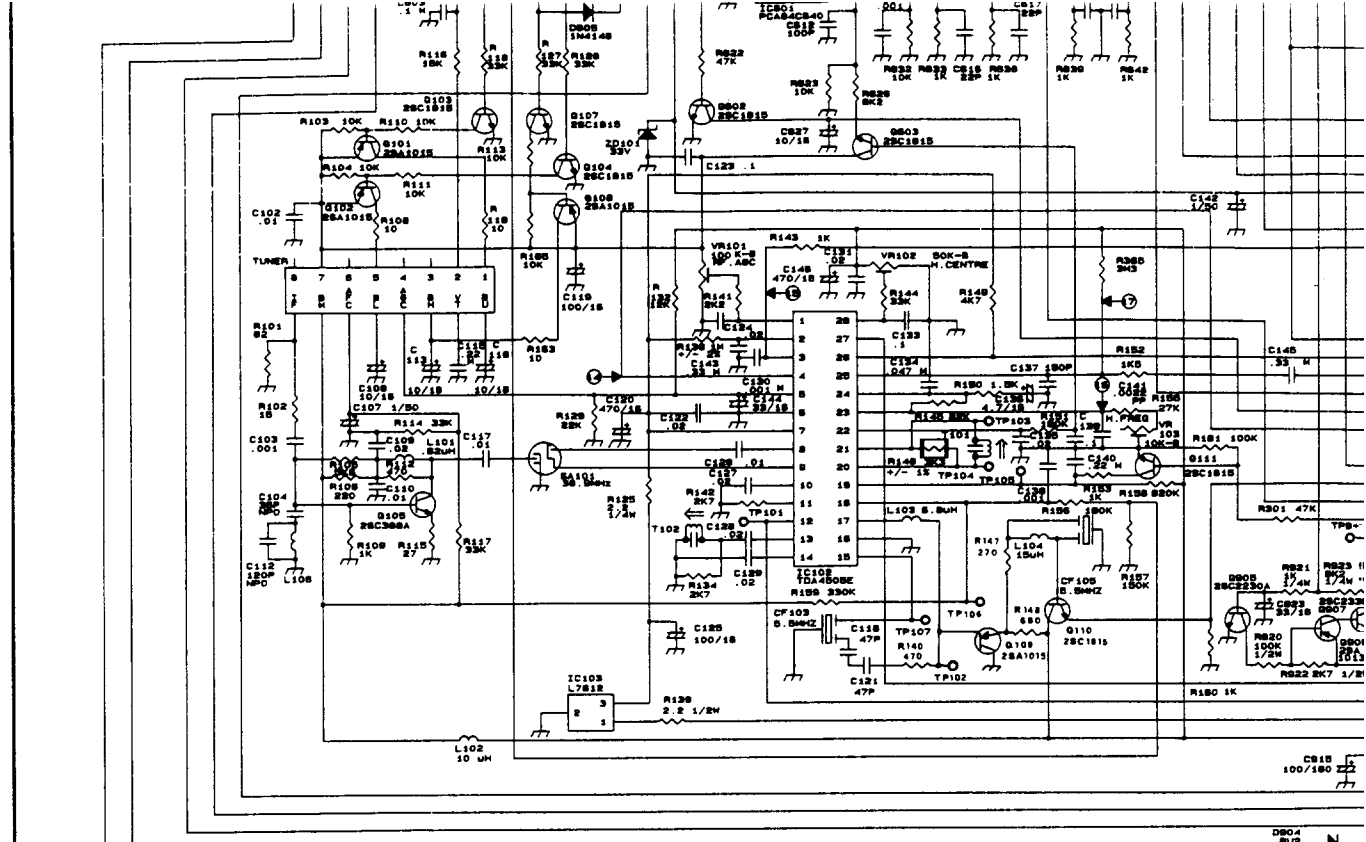
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.

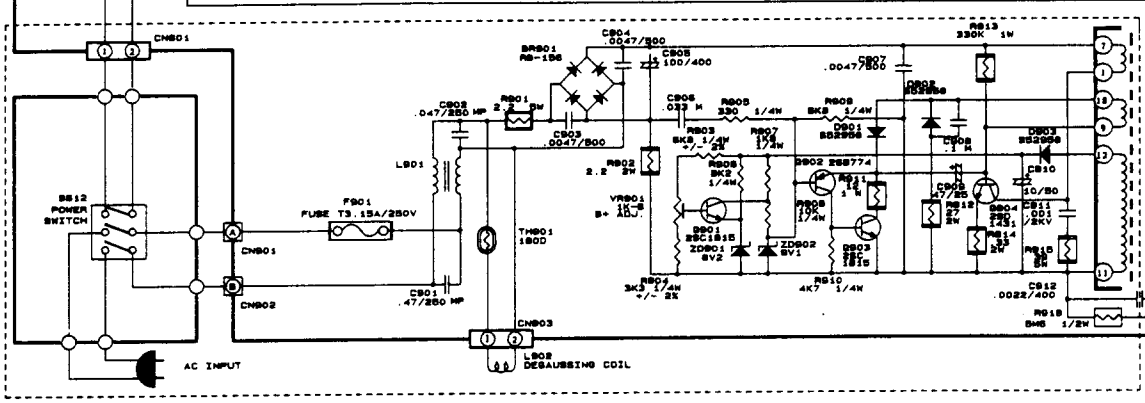
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).

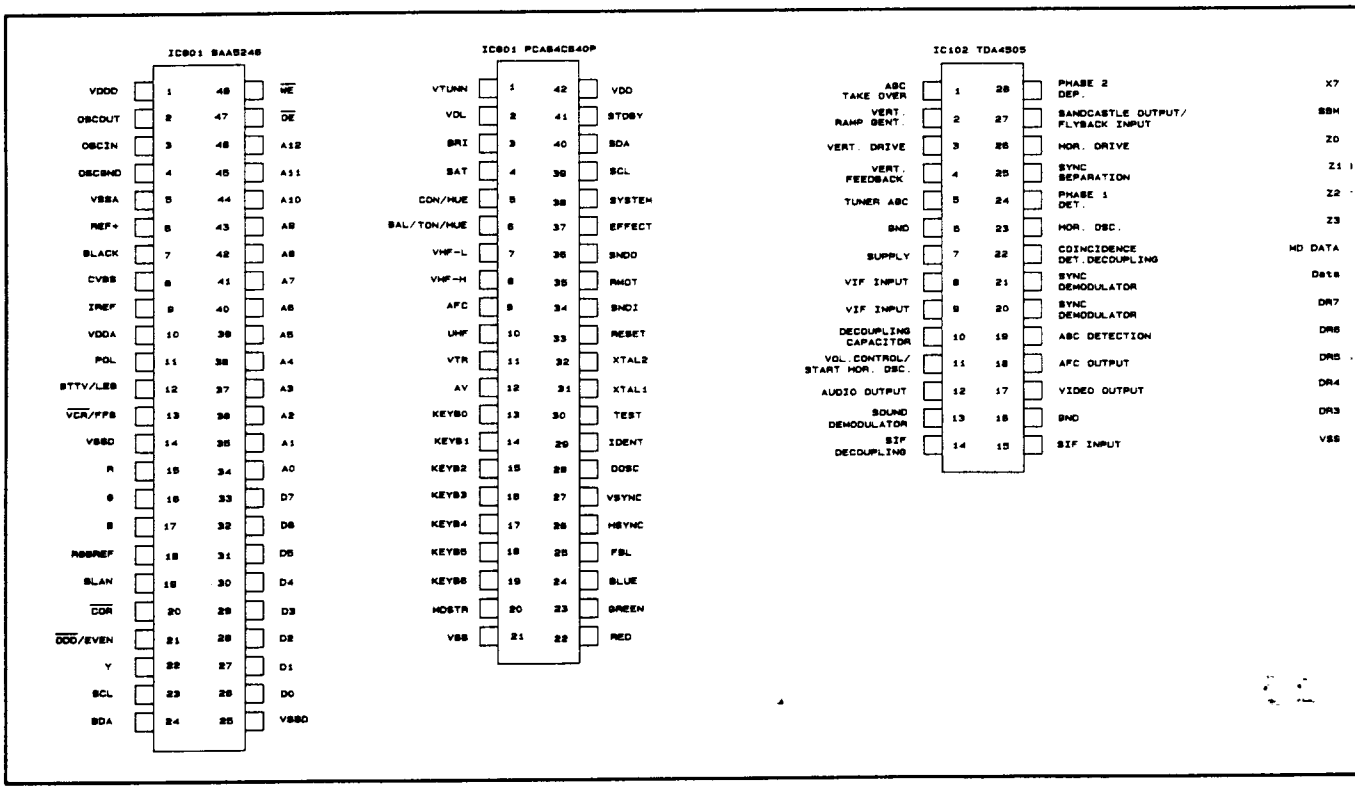
(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

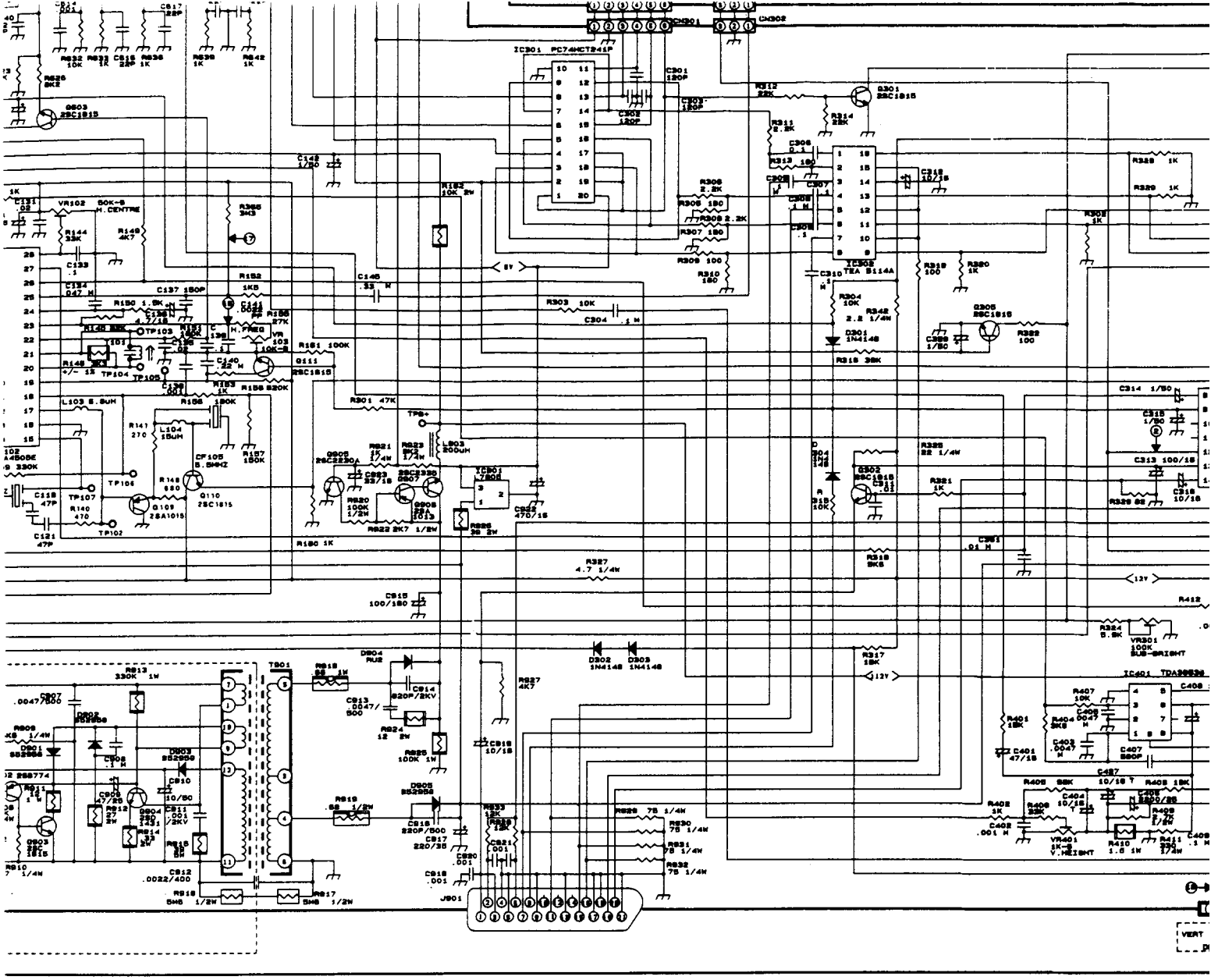
(8) ON THE SCHEMATIC SHOULD BE REPLAED WITH EXACT MANUFACTURER RECOMMENED PARTS.

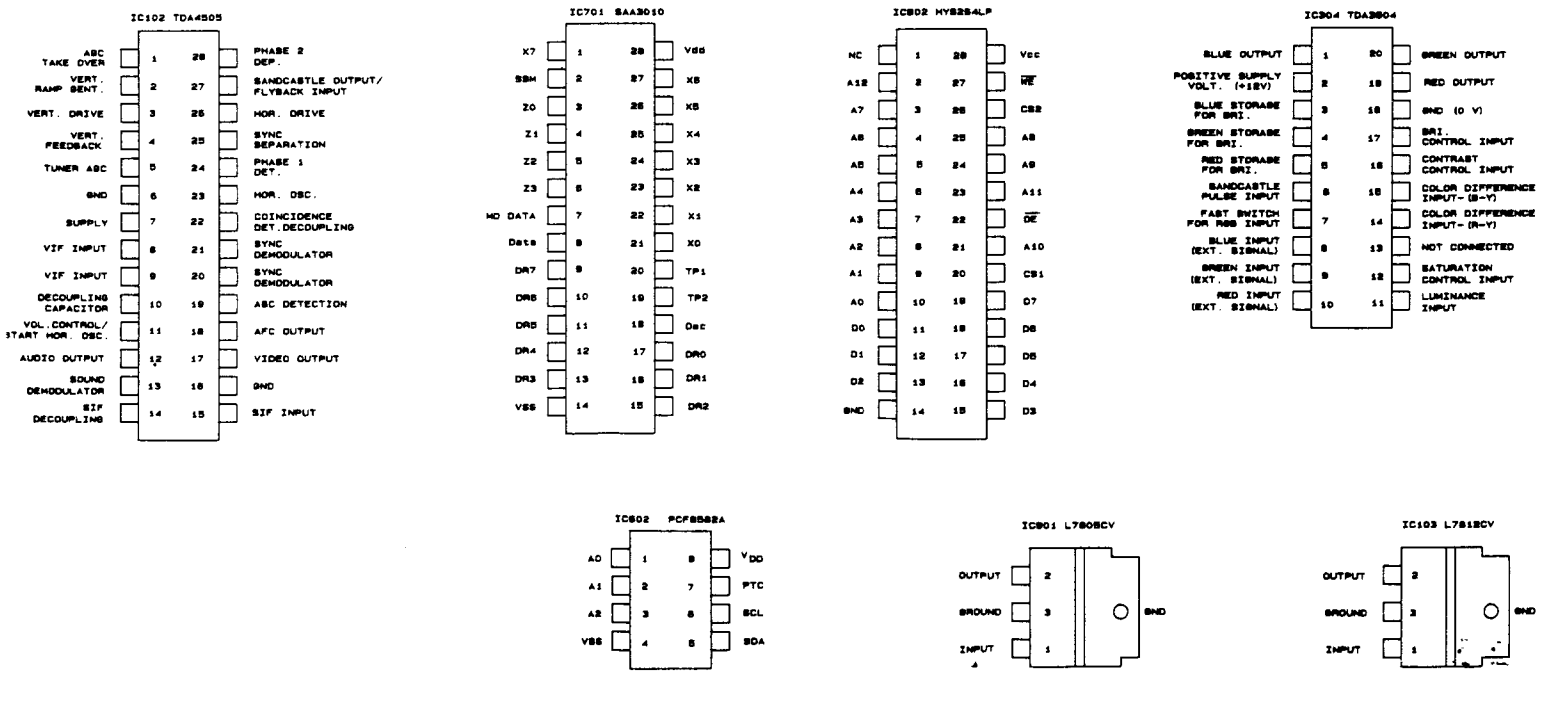


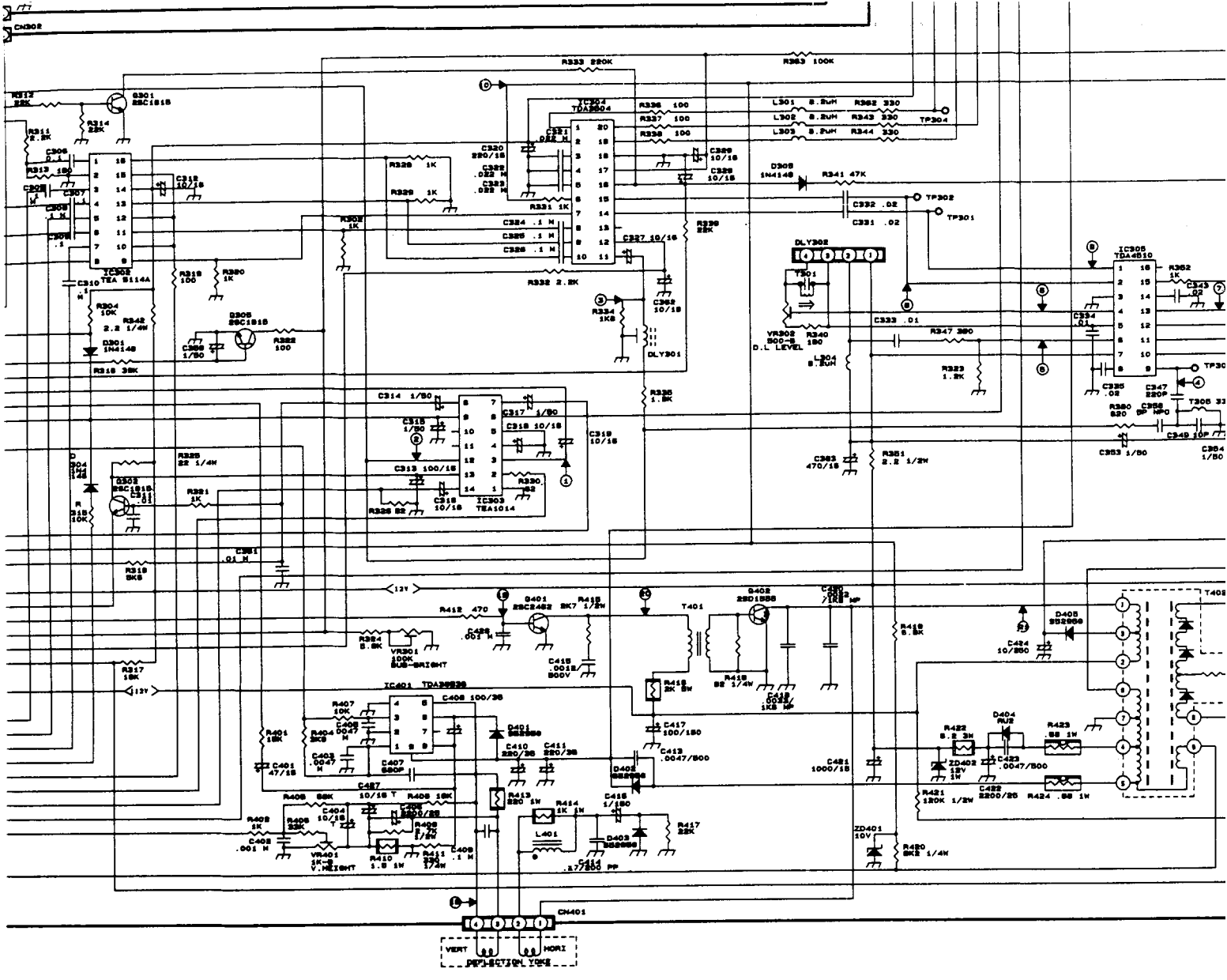

TUNER
IC101 TDA4505E
IC103 L7812
L102 10 uH
L103 6.8uH
CF103 5.5MHZ
CF105 6.5MHZ
TP101
TP102
TP103
TP104
TP105
TP106
TP107

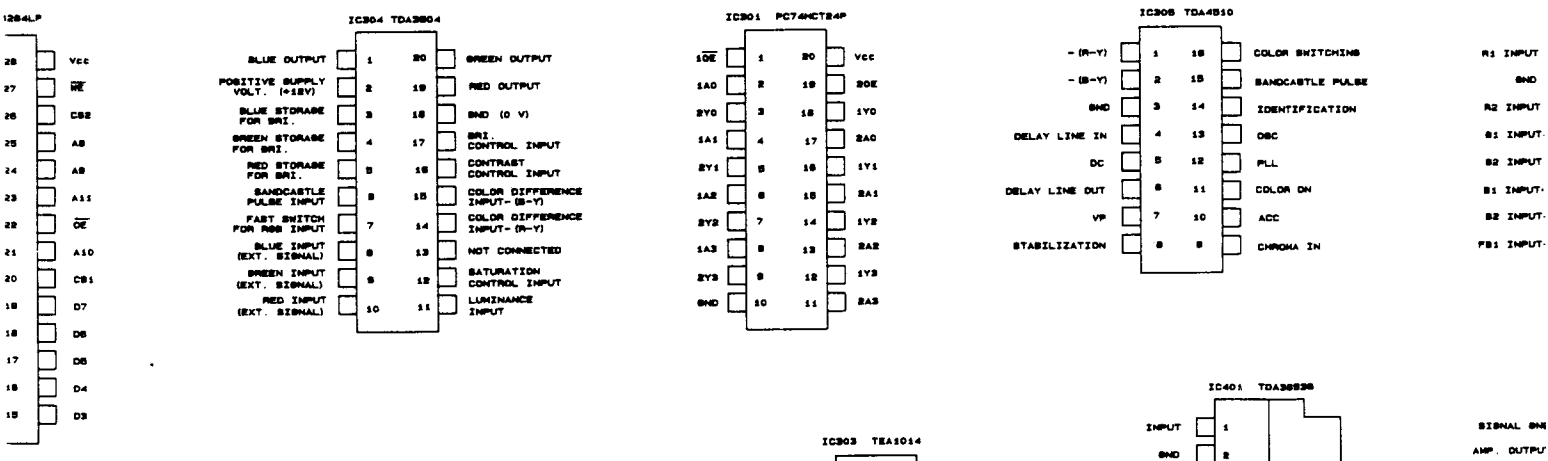

CN801
CN802
CN803
SR512 POWER SWITCH
F901 FUSE T3.15A/250V
TH801 180D
LF801
LS02 DEGAUSSING COIL
AC INPUT
TS01

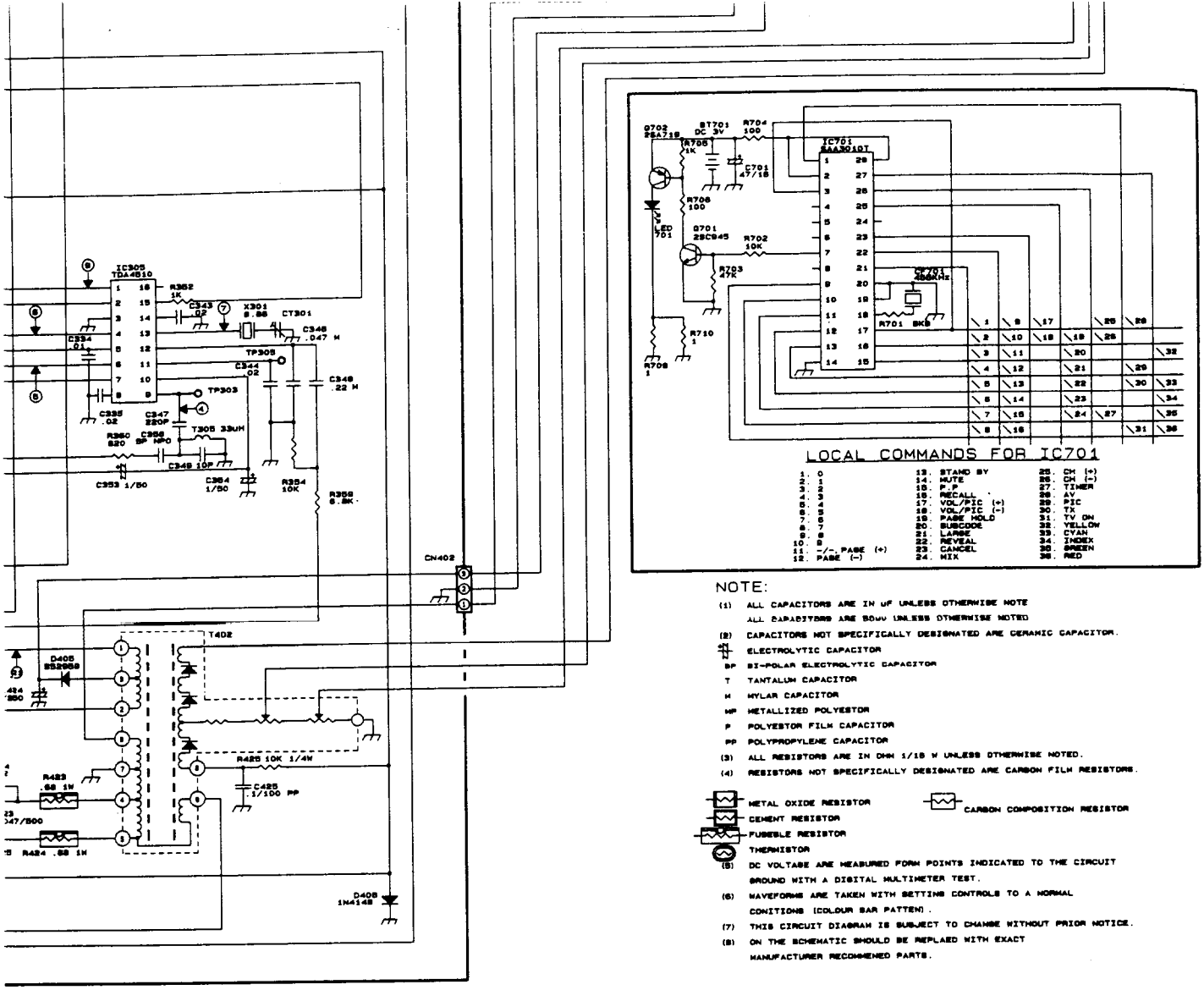

IC801 SAAB246
IC801 PCA84C840P
IC102 TDA4505
VDDD
OSCOUT
OSCIN
OSCGND
VSSA
REF+
BLACK
CVBS
IREF
VDDA
POL
STTV/LES
VCR/FFS
VSSD
R
G
B
RGBREF
SLAN
CDR
ODD/EVEN
Y
SCL
SDA
VSSD
VTUNN
VDL
BRI
SAT
CON/HUE
BAL/TON/HUE
VHF-L
VHF-H
AFC
UHF
VTR
AV
KEYS0
KEYS1
KEYS2
KEYS3
KEYS4
KEYS5
KEYS6
MOSTR
VSS
VDD
STDBY
SDA
SCL
SYSTEM
EFFECT
SNDO
RMOT
SNDI
RESET
XTAL2
XTAL1
TEST
IDENT
DOSC
VSYNC
HSYNC
FSL
BLUE
GREEN
RED
ABC TAKE OVER
VERT. RAMP GENT.
VERT. DRIVE
VERT. FEEDBACK
TUNER ABC
SND
SUPPLY
VIF INPUT
VIF INPUT
DECOUPLING CAPACITOR
VOL. CONTROL/ START HOR. OSC.
AUDIO OUTPUT
SOUND DEMODULATOR
SIF DECOUPLING
PHASE 2 DEP.
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET.
HOR. OSC.
COINCIDENCE DET. DECOUPLING
SYNC DEMODULATOR
SYNC DEMODULATOR
ABC DETECTION
AFC OUTPUT
VIDEO OUTPUT
SND
SIF INPUT
X7
SBM
Z0
Z1
Z2
Z3
MD DATA
Data
DR7
DR6
DR5
DR4
DR3
VSS




IC102 TDA4505
ABC TAKE OVER
VERT. RAMP SENT.
VERT. DRIVE
VERT. FEEDBACK
TUNER AGC
GND
SUPPLY
VIF INPUT
VIF INPUT
DECOUPLING CAPACITOR
VOL.CONTROL/ START HOR. OSC.
AUDIO OUTPUT
SOUND DEMODULATOR
SIF DECOUPLING
PHASE 2 DEP.
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET.
HOR. OSC.
COINCIDENCE DET.DECOUPLING
SYNC DEMODULATOR
SYNC DEMODULATOR
ABC DETECTION
AFC OUTPUT
VIDEO OUTPUT
GND
SIF INPUT
IC701 SAA3010
X7
SSM
Z0
Z1
Z2
Z3
HD DATA
Data
DR7
DR6
DR5
DR4
DR3
VSS
Vdd
X5
X4
X3
X2
X1
X0
TP1
TP2
Osc
DR0
DR1
DR2
IC802 HY62S4LP
NC
A12
A7
A6
A5
A4
A3
A2
A1
A0
D0
D1
D2
GND
Vcc
WE
CS2
A8
A9
A11
OE
A10
CS1
D7
D6
D5
D4
D3
IC304 TDA3804
BLUE OUTPUT
POSITIVE SUPPLY VOLT. (+12V)
BLUE STORAGE FOR BRI.
GREEN STORAGE FOR BRI.
RED STORAGE FOR BRI.
SANDCASTLE PULSE INPUT
FAST SWITCH FOR RGB INPUT
BLUE INPUT (EXT. SIGNAL)
GREEN INPUT (EXT. SIGNAL)
RED INPUT (EXT. SIGNAL)
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT- (B-Y)
COLOR DIFFERENCE INPUT- (R-Y)
NOT CONNECTED
SATURATION CONTROL INPUT
LUMINANCE INPUT
IC602 PCF8582A
A0
A1
A2
VSS
VDD
PTC
SCL
SDA
IC901 L7805CV
OUTPUT
GROUND
INPUT
GND
IC103 L7812CV
OUTPUT
GROUND
INPUT
GND


CN302
R333 220K
R363 100K
IC304 TDA3804
R326 100
R337 100
R338 100
L301 8.2uH
L302 8.2uH
L303 8.2uH
R362 330
R343 330
R344 330
TP304
C321 .022 M
C320 220/16
C322 .022 M
C323 .022 M
C329 10/16
C328 10/16
D308 1N4148
R341 47K
C332 .02
C331 .02
TP302
TP301
R331 1K
C324 .1 M
C325 .1 M
C326 .1 M
C327 10/16
R329 22K
R332 2.2K
DLY302
T301
VR302 500-B D.L LEVEL
R340 180
L304 8.2UH
C333 .01
R347 390
R323 1.2K
R334 1K8
DLY301
IC305 TDA4510
R352 1K
C343 .02
C334 .01
C335 .02
C347 220P
C358 820 5P NPO
C349 10P
C353 1/50
C354 1/50
TP305
R335 1.8K
C314 1/50
C317 1/50
C316 1/50
C318 10/16
C319 10/16
C313 100/16
C315 10/16
IC303 TEA1014
R320 82
R325 82
C351 470/16
R351 2.2 1/2W
R328 1K
R329 1K
R330 1K
C310 1
R304 10K
R342 2.2 1/4W
D301 1N4148
R318 39K
C309 .1
C308 .1 M
C307 .1
C306 .1
R312 22K
R311 2.2K
R314 22K
R313 180
C305 10/16
IC302 TEA 5114A
R316 100
R380 1K
C380 1/50
R382 100
Q305 BSC1815
Q301 BSC1815
R315 10K
R317 18K
R321 1K
C311 .01
Q302 BSC1815
R322 82 1/4W
C312 .01 M
R319 8K8
12V
R412 470
Q401 2SC2482
R418 2K7 1/2W
C426 .001 M
C415 .0018 500V
Q402 2SD1898
T401
R419 2K 5W
R420 82 1/4W
C416 .0022 1K5 MP
R418 8.8K
C424 10/250
D405 BY2956
R422 8.2 3W
D404 RU2
R423 .68 1W
ZD402 12V 1W
C423 .0047/500
C422 2200/25
R424 .68 1W
R421 120K 1/2W
C481 1000/16
ZD401 10V
R420 8K2 1/4W
R384 8.8K
VR301 100K SUB-BRIGHT
IC401 TDA3838
C408 100/35
R407 10K
C405 .0047 M
R404 8K8
R401 18K
C403 .0047 M
C401 47/16
C407 680P
D401 BB809
C410 220/35
C411 220/35
D402 BB809
C417 100/180
C413 .0047/500
R408 68K
C487 10/16 T
R406 18K
C404 10/16 T
C406 1000/25
R409 22K
R405 2K7 1/2W
C402 .001 M
VR401 1K BRIGHT
R410 1.8 1W
R411 220 1/2W
C409 .1 M
R413 220 1W
R414 1K 1W
L401
C414 .27/250 PP
D403 BB809
R417 22K
CN401
VERT
HORI
DEFLECTION YOKE


12B4LP
28 Vcc
27 WE
26 CS2
25 A9
24 A8
23 A11
22 OE
21 A10
20 CS1
19 D7
18 D6
17 D5
16 D4
15 D3
IC304 TDA3804
BLUE OUTPUT
POSITIVE SUPPLY VOLT. (+12V)
BLUE STORAGE FOR BRI.
GREEN STORAGE FOR BRI.
RED STORAGE FOR BRI.
SANDCASTLE PULSE INPUT
FAST SWITCH FOR RGB INPUT
BLUE INPUT (EXT. SIGNAL)
GREEN INPUT (EXT. SIGNAL)
RED INPUT (EXT. SIGNAL)
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT- (B-Y)
COLOR DIFFERENCE INPUT- (R-Y)
NOT CONNECTED
SATURATION CONTROL INPUT
LUMINANCE INPUT
IC301 PC74HCT24P
1OE
1A0
2Y0
1A1
2Y1
1A2
2Y2
1A3
2Y3
GND
Vcc
2OE
1Y0
2A0
1Y1
2A1
1Y2
2A2
1Y3
2A3
IC305 TDA4510
- (R-Y)
- (B-Y)
GND
IDENTIFICATION
DELAY LINE IN
OSC
DC
PLL
DELAY LINE OUT
COLOR ON
VP
ACC
STABILIZATION
CHROMA IN
COLOR SWITCHING
SANDCASTLE PULSE
R1 INPUT
GND
R2 INPUT
G1 INPUT
G2 INPUT
B1 INPUT
B2 INPUT
FB1 INPUT
IC303 TEA1014
GND
EXT. VIDEO DUPUT
INT. VIDEO INPUT
REF.
TIME CONSTANT SWITCHING
SOUND OUTPUT
EXT. SOUND INPUT
EXT. VIDEO INPUT
SUPPLY
INT. VIDEO OUTPUT
BAND III INFORMATION
VIDEO RECORDER KEY
VIDEO AND SOUND SWITCHING
INT. SOUND INPUT
IC401 TDA3838
INPUT
GND
INPUT
GND
OUTPUT
VP
NC
Feedback
VP
SIGNAL GND
AMP. OUTPUT
SUPPLY VOLT
ELECT. FILTER
AMP. INPUT
CONTROL UNIT OUTPUT
CONTROL VOLT
CONTROL UNIT INPUT
POWER GND
IC901 L7805CV
OUTPUT
GROUND
INPUT
GND
IC103 L7812CV
OUTPUT
GROUND
INPUT
GND



LOCAL COMMANDS FOR IC701

1. 0	13. STAND BY	25. CH (+)	
2. 1	14. MUTE	26. CH (-)	
3. 2	15. P.P	27. TIMER	
4. 3	16. RECALL	28. AV	
5. 4	17. VOL/PIC (+)	29. PIC	
6. 5	18. VOL/PIC (-)	30. TV	
7. 6	19. PAGE HOLD	31. TV ON	
8. 7	20. SUBCODE	32. YELLOW	
9. 8	21. LARGE	33. CYAN	
10. 9	22. REVEAL	34. INDEX	
11. -/-. PAGE (+)	23. CANCEL	35. GREEN	
12. PAGE (-)	24. MIX	36. RED	

NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50Vdc UNLESS OTHERWISE NOTED

(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.

ELECTROLYTIC CAPACITOR

BP BI-POLAR ELECTROLYTIC CAPACITOR

T TANTALUM CAPACITOR

M MYLAR CAPACITOR

MP METALLIZED POLYESTOR

P POLYESTOR FILM CAPACITOR

PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/10 W UNLESS OTHERWISE NOTED.

(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.

METAL OXIDE RESISTOR

CEMENT RESISTOR

FUSEBLE RESISTOR

THERMISTOR

CARBON COMPOSITION RESISTOR

(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.

(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).

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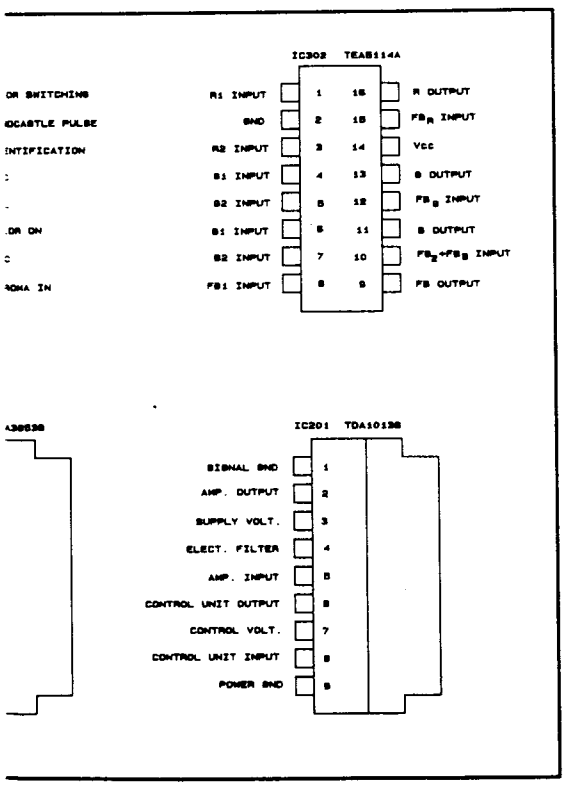
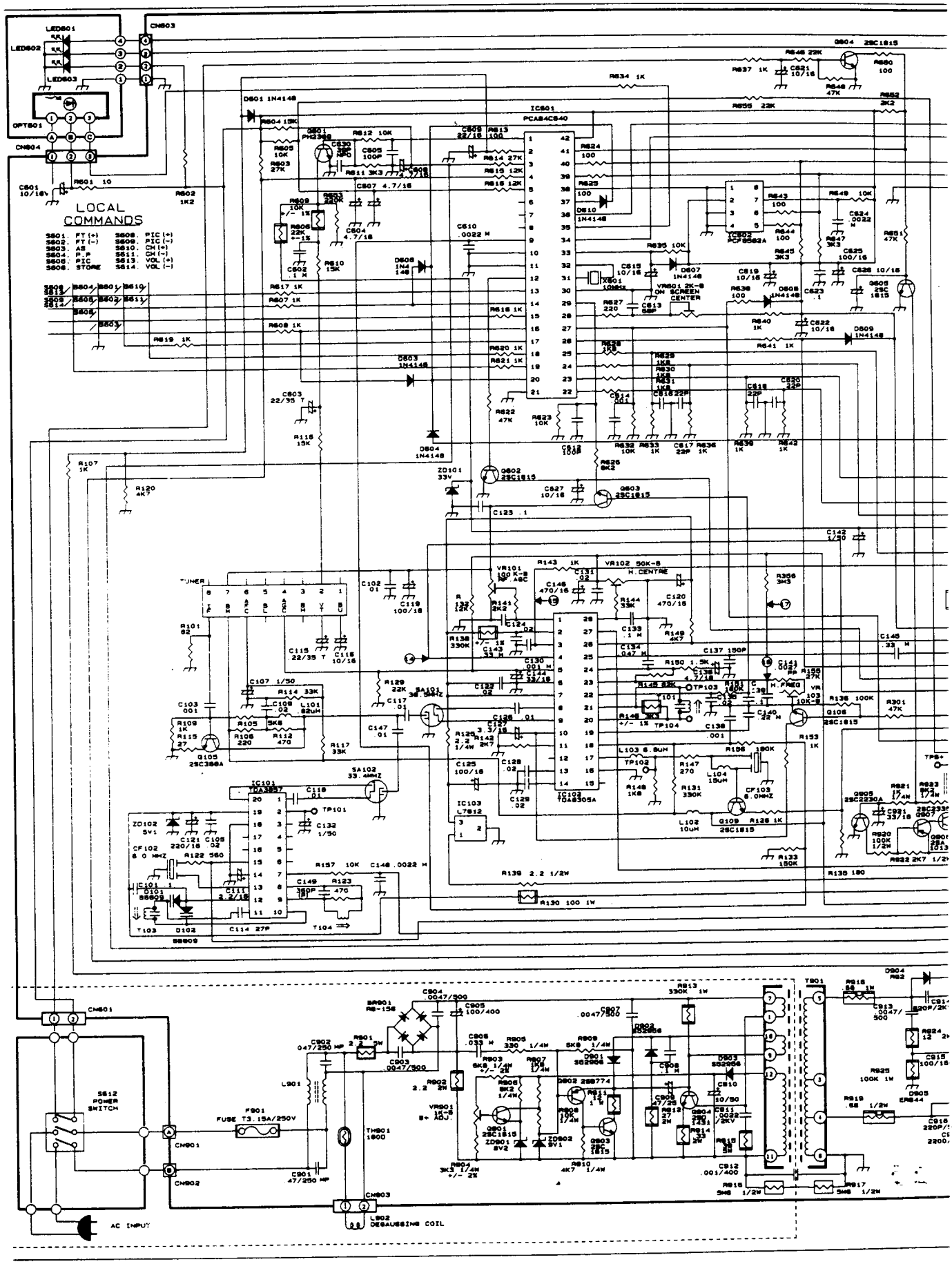

IC302 TEA8114A
R1 INPUT 1 16 R OUTPUT
GND 2 15 FBR INPUT
R2 INPUT 3 14 Vcc
B1 INPUT 4 13 B OUTPUT
B2 INPUT 5 12 FBB INPUT
B1 INPUT 6 11 B OUTPUT
B2 INPUT 7 10 FBB+FBB INPUT
FB1 INPUT 8 9 FB OUTPUT
IC201 TDA1013B
SIGNAL GND 1
AMP. OUTPUT 2
SUPPLY VOLT. 3
ELECT. FILTER 4
AMP. INPUT 5
CONTROL UNIT OUTPUT 6
CONTROL VOLT. 7
CONTROL UNIT INPUT 8
POWER GND 9

GREAT WALL FRANCE	
SHEMATIC DIAGRAM N°10	
PAL.BG FTZ WITH SCART CONNECTOR AND S TEXT	SUITABLE FOR MODELS 8920 B - 9220 8821 - 8921 - 9213


LOCAL
COMMANDS
S601: FT (+)
S602: FT (-)
S603: AS
S604: P.P
S605: PIC
S606: STORE
S607: PIC (+)
S608: PIC (-)
S609: CH (+)
S610: CH (-)
S611: VOL (+)
S612: VOL (-)
LED601
LED602
LED603
OPT601
CN803
CN804
IC801
PCA84C640
IC802
PCF8582A
TUNER
IC101
TDA3857
IC103
TDA8305A
IC103
L7812
SA101
38.9MHz
SA102
33.4MHz
CF102
6.0 MHz
CF103
6.0MHz
VR101
100 K-B
MP. ADC
VR102 50K-B
H.CENTRE
VR501 2K-B
ON SCREEN
CENTER
Q105
2SC3804
Q106
2SC1815
Q109
2SC1815
Q801
2SC1815
Q802
2SC1815
Q803
2SC1815
Q804
2SC1815
Q805
2SC1815
Q806
2SC2230A
Q807
2SC3331
Q808
2SA1013
ZD101
33V
ZD102
5V1
ZD801
8V2
ZD802
8V1
D101
S8809
D102
S8809
D801
S82006
D802
S82006
D803
S82006
D804
RB2
D805
ER844
D806
1N4148
D807
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D808
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D809
1N4148
D810
1N4148
D601 1N4148
D603
1N4148
D604
1N4148
TP101
TP102
TP103
TP104
TP501
TP5+
TP6+
T101
T103
T104
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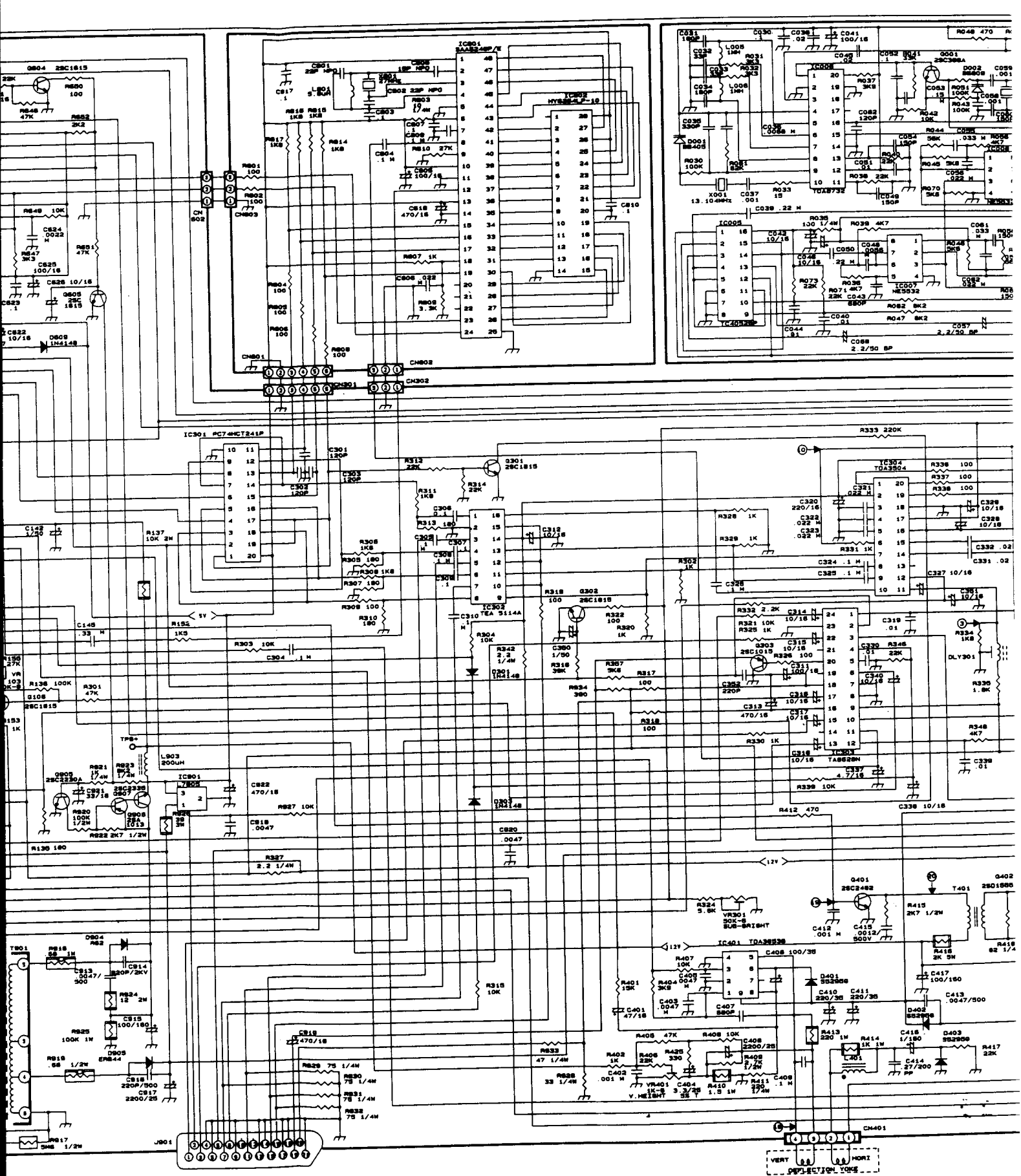
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IC802 HY6264LP-10
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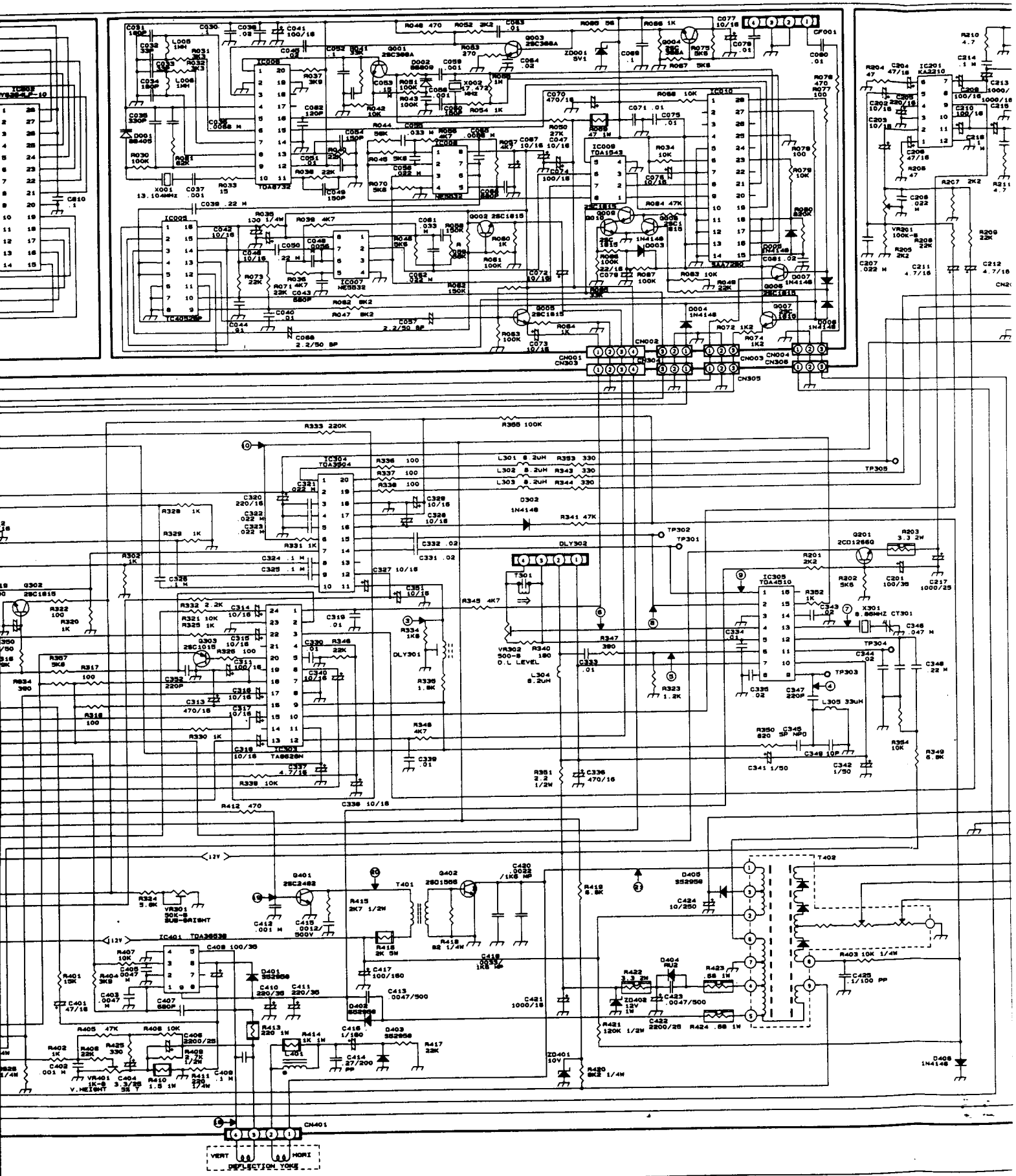
IC805 TDA8828N
IC806 NE5532
IC807 TC4052BP
IC301 PC74HCT241P
IC302 TEA 5114A
IC401 TDA3653B
IC901 L7805
CN801
CN802
CN803
CN301
CN302
CN401
J901
TP01
TP5+
VERT
HORI
DEFLECTION YOKE
VR301 50K-B SUB-BRIGHT
VR401 1K-B V.HEIGHT
X001 13.104MHz
L903 200uH
T401
DLY301
12V
5V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IC003 NE5532
IC004 TDA8752
IC005 TDA8752B
IC007 NE5532
IC304 TDA3504
IC305 TDA4510
IC401 TDA3653B
IC201 KA2210
X001 13.104MHz
X003 17.472 MHz
X301 8.86MHz CT301
VR301 50K-B SUB-BRIGHT
VR302 500-B D.L LEVEL
VR401 1K-B V.HEIGHT
VR201 100K-B
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DLY301
DLY302
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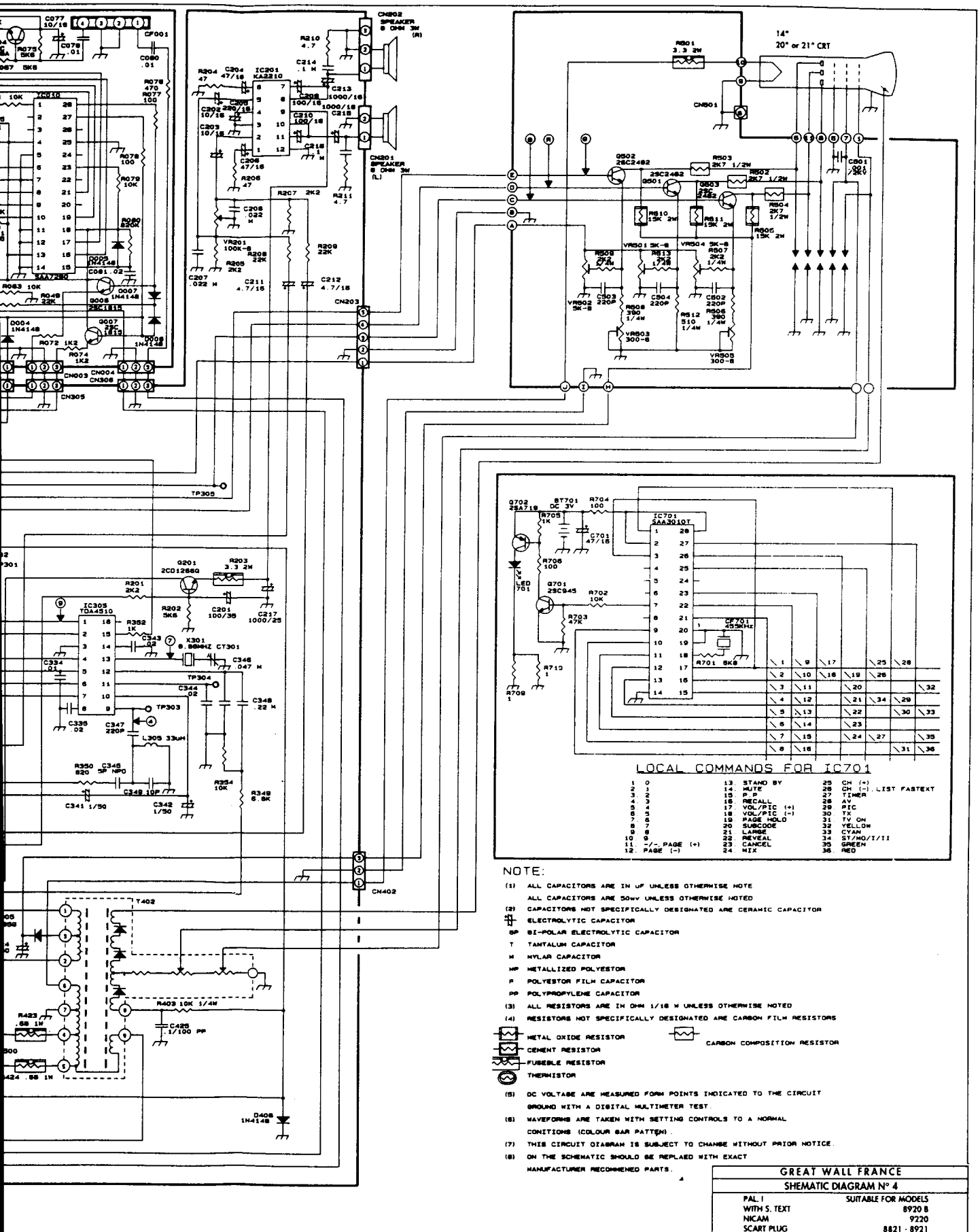
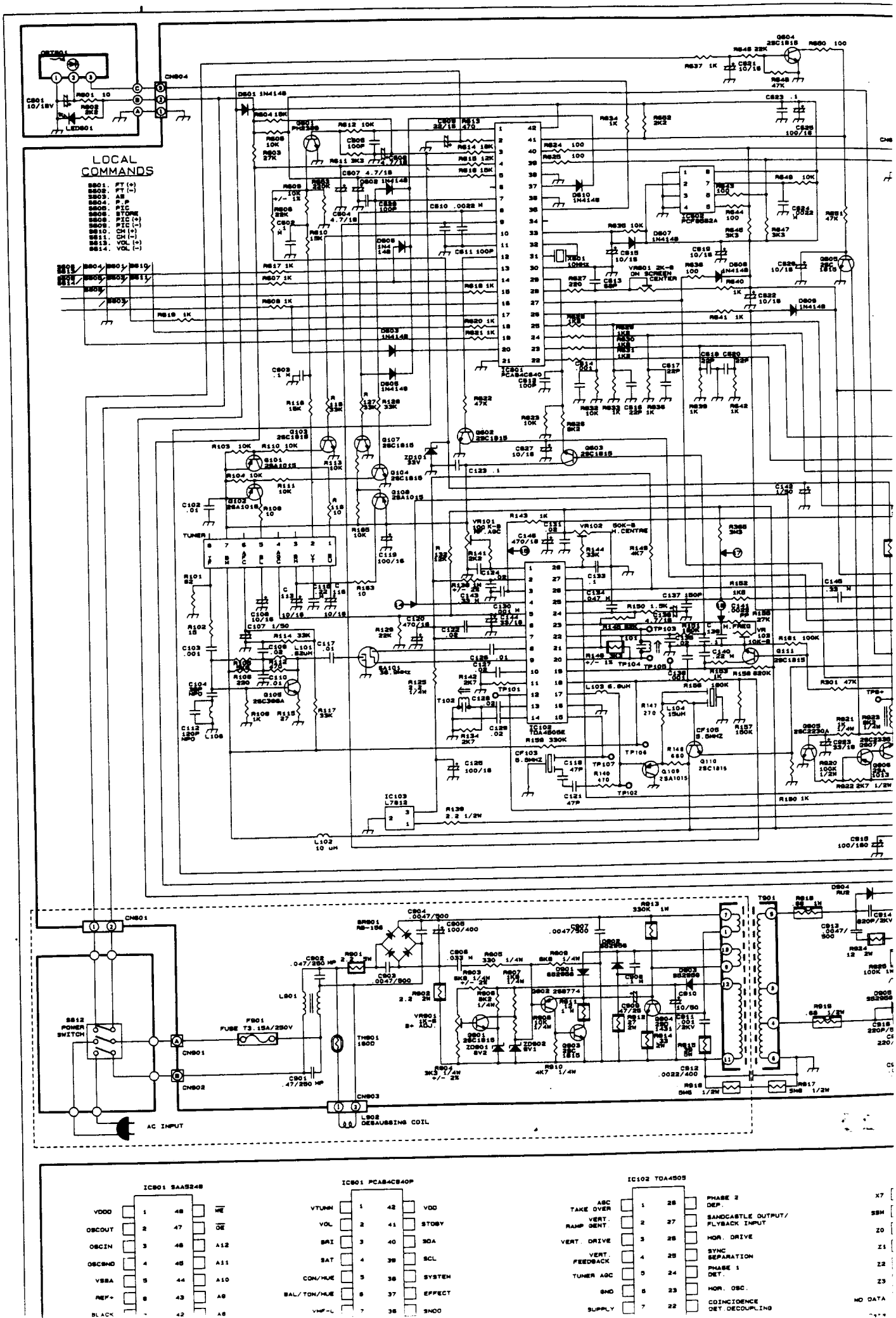
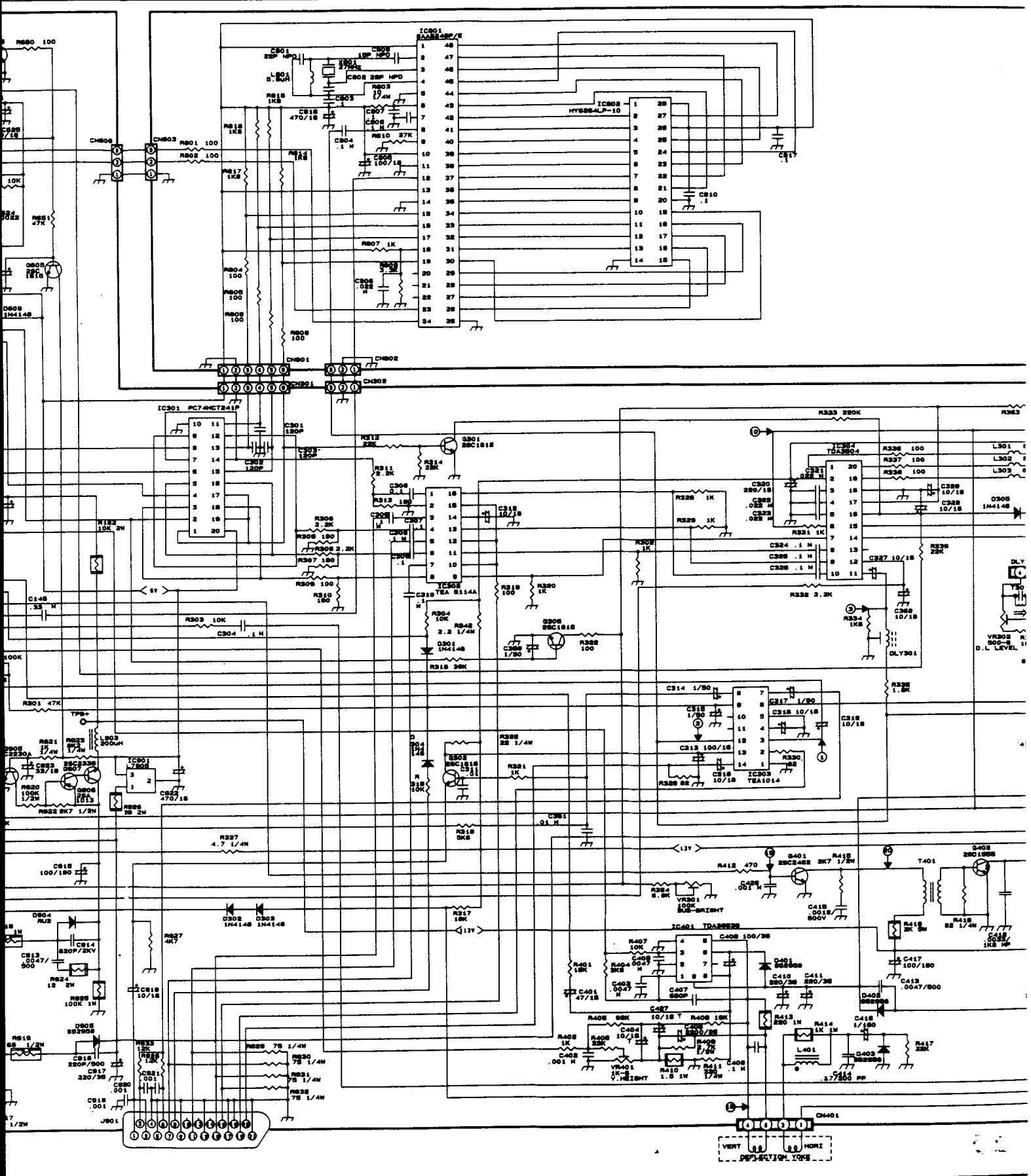


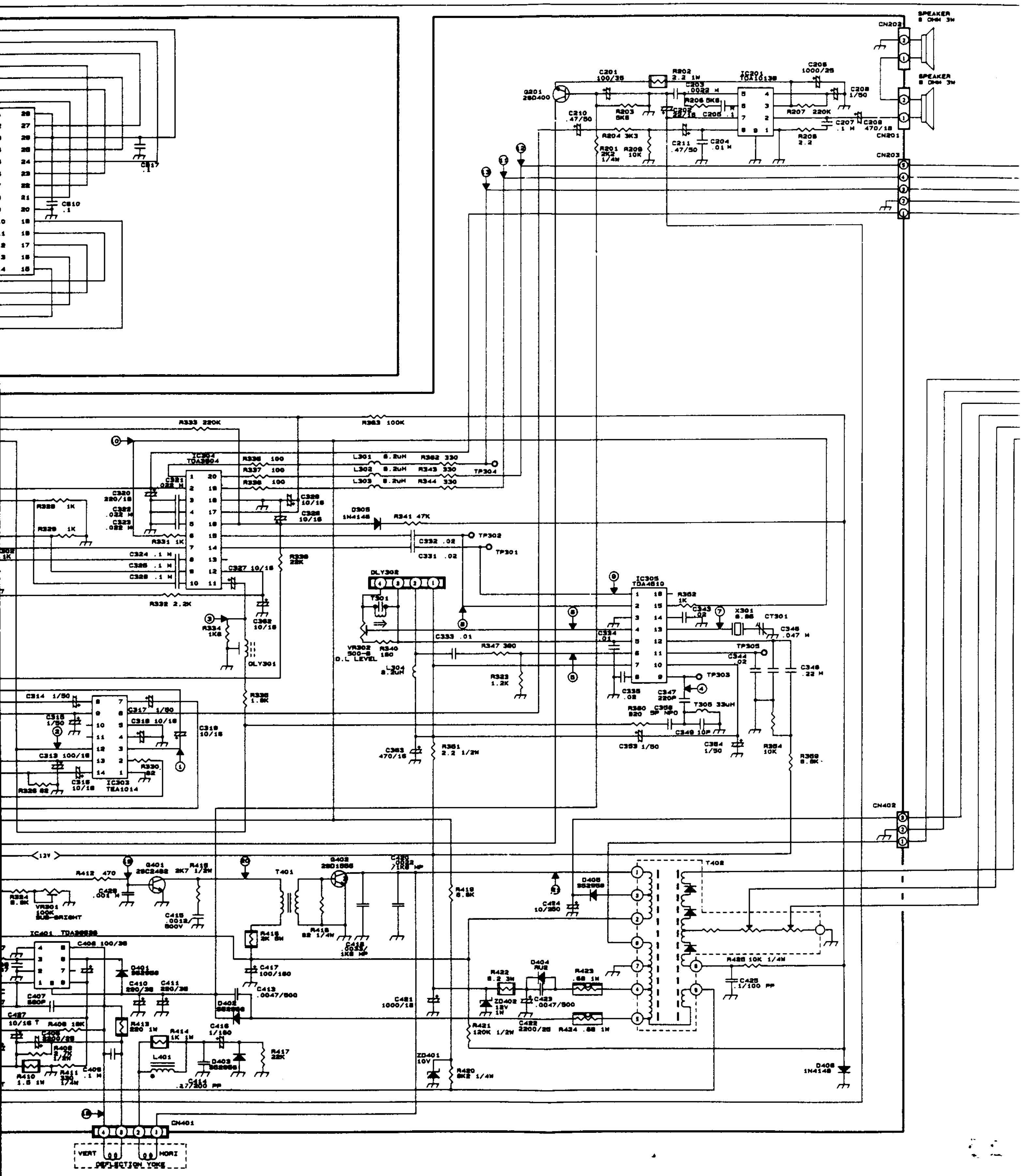
NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED
(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR
ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR
(3) ALL RESISTORS ARE IN OHM 1/16 W UNLESS OTHERWISE NOTED
(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS
METAL OXIDE RESISTOR
CARBON COMPOSITION RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).
(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.
(8) ON THE SCHEMATIC SHOULD BE REPLACED WITH EXACT MANUFACTURER RECOMMENED PARTS.

GREAT WALL FRANCE	
SHEMATIC DIAGRAM N° 4	
PAL I	SUITABLE FOR MODELS
WITH S. TEXT	8920 B
NICAM	9220
SCART PLUG	8821 - 8921


LOCAL COMMANDS
SB01: FT (+)
SB02: FT (-)
SB03: AS
SB04: P-P
SB05: PIC
SB06: STORE
SB09: PIC (+)
SB08: PIC (-)
SB10: CH (+)
SB11: CH (-)
SB13: VOL (+)
SB14: VOL (-)
CN804
CN801
CN802
CN803
SB12 POWER SWITCH
FS01 FUSE T3.15A/250V
TM801 180D
LS01
LS02 DEGAUSSING COIL
AC INPUT
TUNER
IC801 SAA5248
IC801 PCA84C840P
IC102 TDA4505
IC103 L7812
IC102 TDA4505
VDDD
OSCOUT
OSCIN
OSCGND
VSSA
REF+
BLACK
VTUNN
VOL
BRI
SAT
CON/HUE
BAL/TON/HUE
VHF-L
VDD
STDBY
SDA
SCL
SYSTEM
EFFECT
SNDO
TAKE OVER
RAMP GENT.
VERT. DRIVE
VERT. FEEDBACK
TUNER AGC
SND
SUPPLY
PHASE 2 DEP.
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET.
HOR. OSC.
COINCIDENCE DET. DECOUPLING


IC701 SAA3010
IC802 HYS264LP
IC304 TDA3804
IC301 PC74HCT24P
IC801 SAA5240P/E
IC808 HYS264LP-10
IC301 PC74HCT241P
IC302 TDA3804
IC303 TEA1014
IC304 TEA 5114A
IC401 TDA2595B
IC901 7808
CN401
VERT
HORI
DEFLECTION YOKE
VR301 100K SUB-BRIGHT
VR401 1K-B V.HEIGHT
DLY301
VR302 500-B D.L LEVEL
T401
L801 6.5MA
L802 200UH
L803 200UH
L401
JB01


SPEAKER 8 OHM 3W
CN202
SPEAKER 8 OHM 3W
CN201
CN203
IC201 TDA1013B
Q201 2SD400
C201 100/35
R202 2.2 1W
C203 .0022 M
R206 5K6
C205 .1
C206 1000/25
C208 1/50
R207 220K
C207 .1 M
C209 470/16
R208 2.2
C202 22/16
C210 .47/50
R203 5K6
R204 3K3
R201 2K2 1/4W
R209 10K
C211 .47/50
C204 .01 M
C810 .1
C817 .1
R333 220K
R363 100K
IC304 TDA3504
R335 100
R337 100
R338 100
L301 8.2uH
L302 8.2uH
L303 8.2uH
R362 330
R343 330
R344 330
TP304
C321 .022 M
C320 220/16
C322 .022 M
C323 .022 M
R328 1K
R329 1K
R331 1K
C329 10/16
C326 10/16
D305 1N4148
R341 47K
TP302
C332 .02
C331 .02
TP301
C324 .1 M
C325 .1 M
C328 .1 M
C327 10/16
R339 22K
R332 2.2K
C362 10/16
R334 1K8
DLY301
DLY302
T301
VR302 500-B D.L LEVEL
R340 180
C333 .01
R347 390
L304 8.2uH
R323 1.2K
IC305 TDA4510
R362 1K
C343 .02
X301 8.86
CT301
C345 .047 M
C334 .01
TP305
C344 .02
C346 .22 M
C335 .02
TP303
C347 220P
T305 33uH
R360 820
C358 5P NPO
C349 10P
C353 1/50
C354 1/50
R364 10K
R369 6.8K
C314 1/50
C315 1/50
C317 1/50
C318 10/16
C319 10/16
C313 100/16
C316 10/16
R330 82
R326 82
IC303 TEA1014
R336 1.8K
C363 470/16
R361 2.2 1/2W
CN402
12V
R412 470
Q401 2SC2482
R415 2K7 1/2W
C426 .001 M
R324 6.8K
VR301 100K SUB-BRIGHT
C415 .0012/800V
T401
Q402 2SD1556
C420 .0022/1K8 MP
R419 6.8K
R418 2K 5W
R416 82 1/4W
C418 .0033/1K8 MP
IC401 TDA2653A
C408 100/35
D401 SS2956
C410 220/35
C411 220/35
C417 100/160
C413 .0047/500
C407 560P
C427 10/16 T
R408 18K
C405 2200/25
R409 2.7K 1/2W
R413 220 1W
R414 1K 1W
C416 1/160
L401
D402 SS2956
D403 SS2956
R417 22K
R410 1.5 1W
R411 330 1/4W
C406 .1 M
C414 .27/200 PP
C421 1000/16
ZD401 10V
R420 8K2 1/4W
R421 120K 1/2W
R422 8.2 3W
ZD402 12V 1W
D404 RU2
C423 .0047/500
C422 2200/25
R423 .68 1W
R424 .68 1W
C424 10/250
D405 SS2956
T402
R425 10K 1/4W
C425 .1/100 PP
D406 1N4148
CN401
VERT
HORI
DEFLECTION YOKE

GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT-(B-Y)
COLOR DIFFERENCE INPUT-(R-Y)

IC301 PC74HCT24P

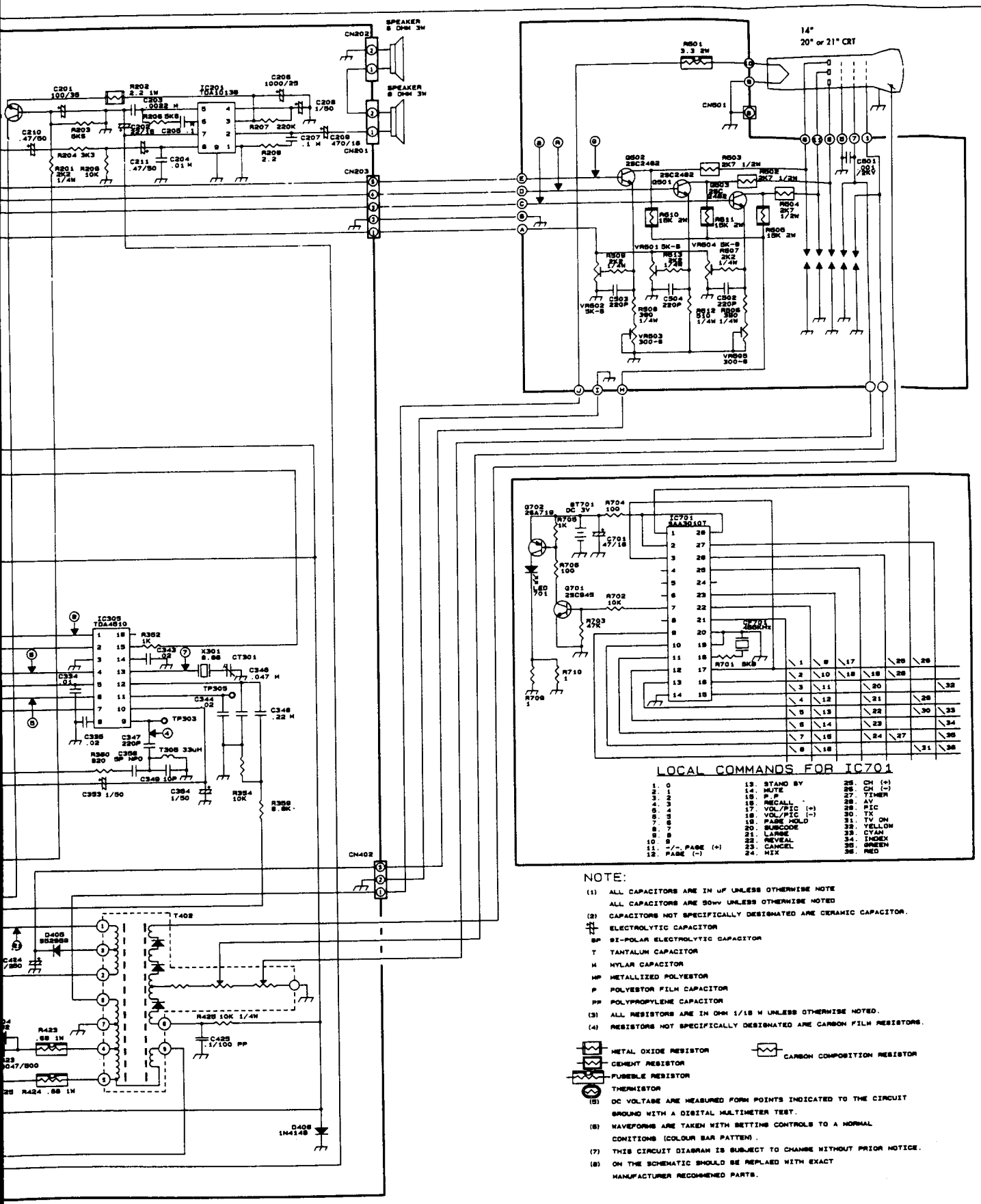
$1\overline{OE}$	1	20	Vcc
1A0	2	19	2OE
2Y0	3	18	1Y0
1A1	4	17	2A0
2Y1	5	16	1Y1
1A2	6	15	2A1
2Y2	7	14	1Y2

IC308 TDA4510

-(R-Y)	1	16	COLOR SWITCHING
-(B-Y)	2	15	SANDCASTLE PULSE
GND	3	14	IDENTIFICATION
DELAY LINE IN	4	13	OSC
DC	5	12	PLL
DELAY LINE OUT	6	11	COLOR ON
VP	7	10	ACC

IC302 TEA5114A

R1 INPUT	1	16	R OUTPUT
GND	2	15	FB_R INPUT
R2 INPUT	3	14	Vcc
G1 INPUT	4	13	G OUTPUT
G2 INPUT	5	12	FB_G INPUT
B1 INPUT	6	11	B OUTPUT
B2 INPUT	7	10	FB_2-FB_B INPUT



LOCAL COMMANDS FOR IC701

1. 0	13. STAND BY	25. CH (+)
2. 1	14. MUTE	26. CH (-)
3. 2	15. P.P	27. TIMER
4. 3	16. RECALL	28. AV
5. 4	17. VOL/PIC (+)	29. PIC
6. 5	18. VOL/PIC (-)	30. TV
7. 6	19. PAGE HOLD	31. TV ON
8. 7	20. SUBCODE	32. YELLOW
9. 8	21. LARGE	33. CYAN
10. 9	22. REVEAL	34. INDEX
11. -/-. PAGE (+)	23. CANCEL	35. GREEN
12. PAGE (-)	24. MIX	36. RED

NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50wv UNLESS OTHERWISE NOTED

(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.
ELECTROLYTIC CAPACITOR
BP BI-POLAR ELECTROLYTIC CAPACITOR
T TANTALUM CAPACITOR
M MYLAR CAPACITOR
MP METALLIZED POLYESTOR
P POLYESTOR FILM CAPACITOR
PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/18 W UNLESS OTHERWISE NOTED.

(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.

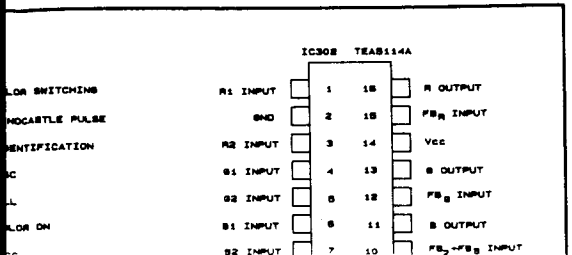
METAL OXIDE RESISTOR
CEMENT RESISTOR
FUSEBLE RESISTOR
THERMISTOR
CARBON COMPOSITION RESISTOR

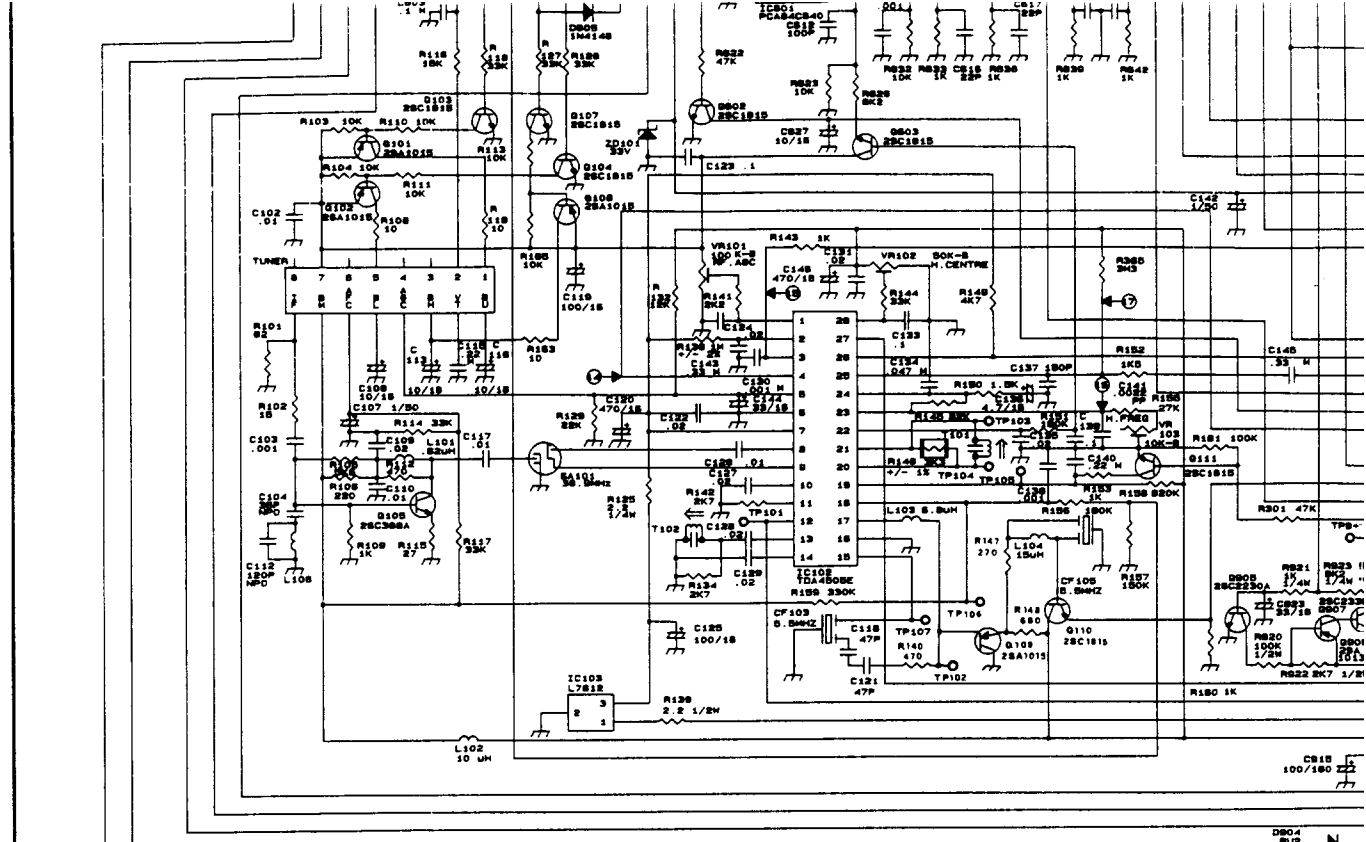
(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.

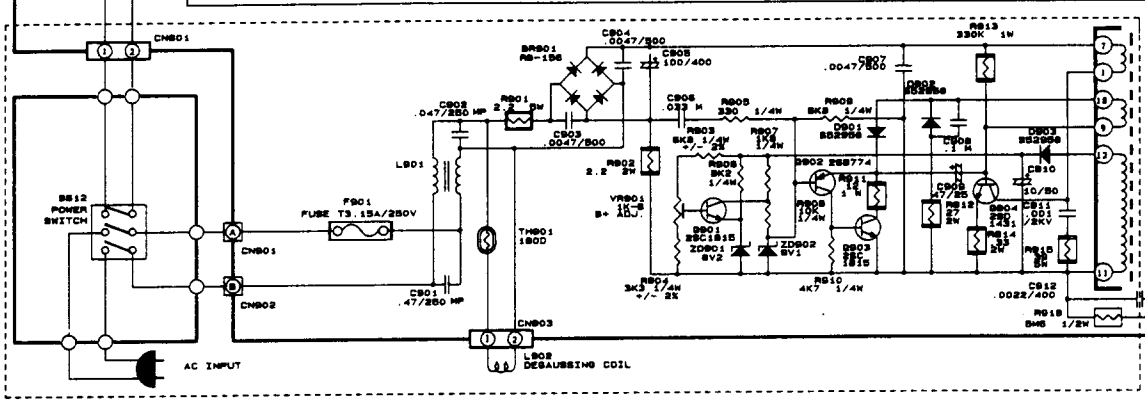
(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).

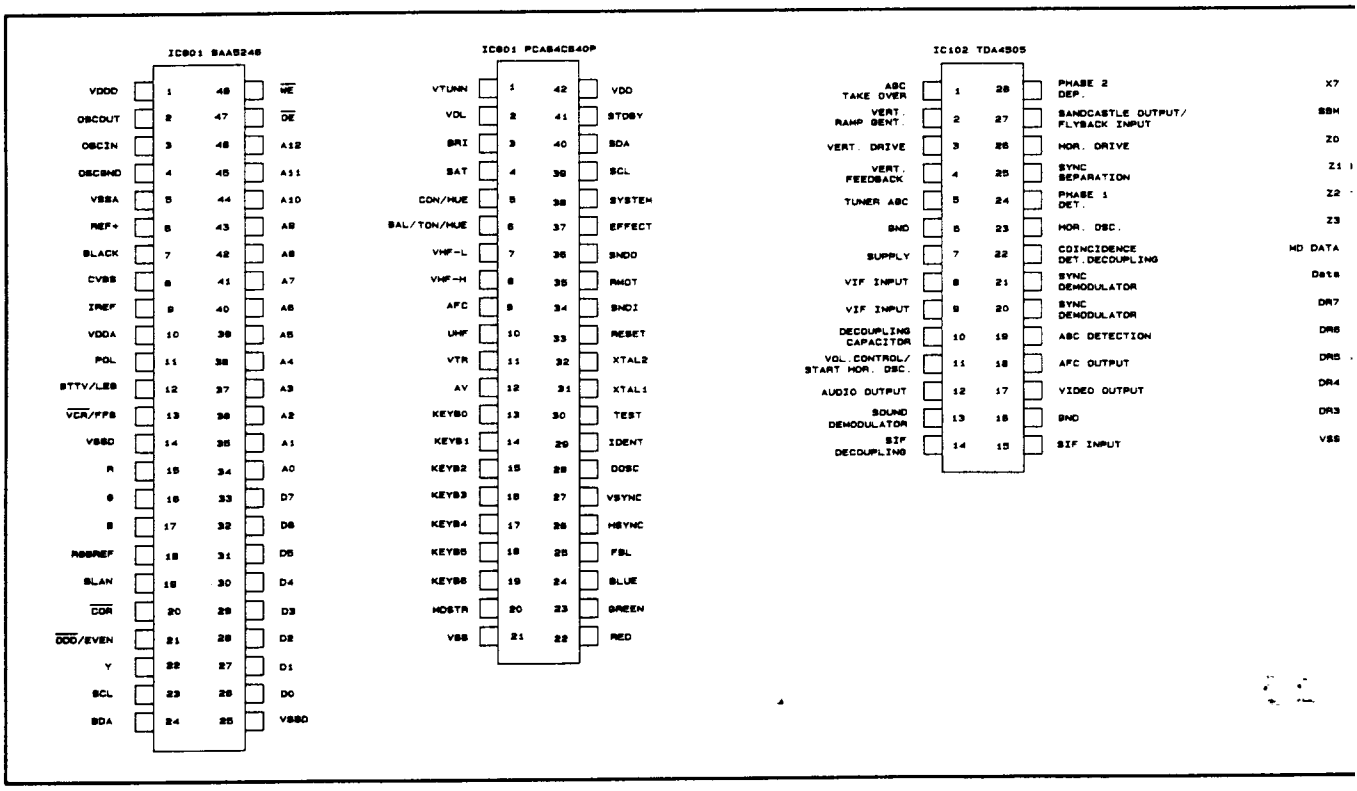
(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

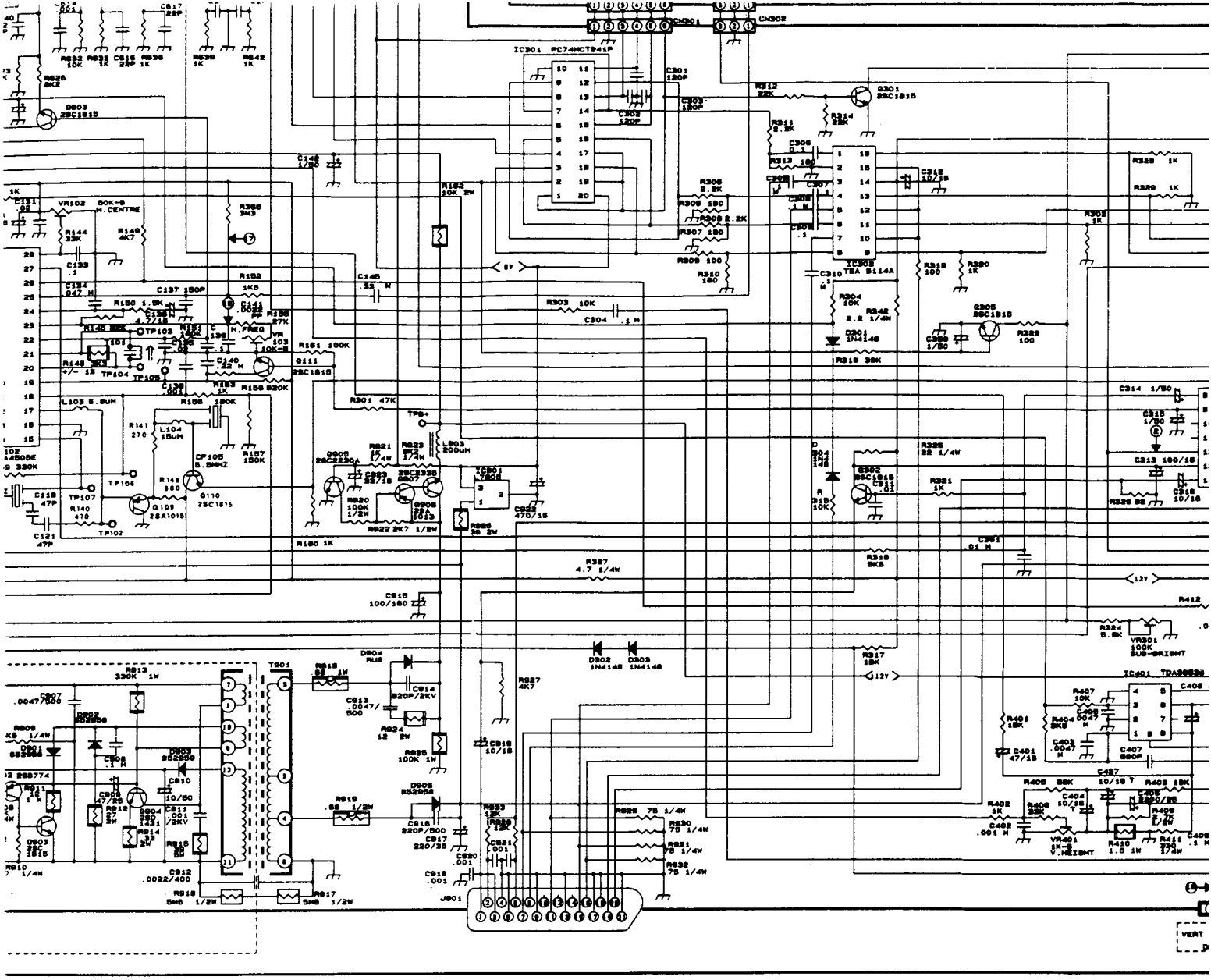
(8) ON THE SCHEMATIC SHOULD BE REPLAED WITH EXACT MANUFACTURER RECOMMENED PARTS.

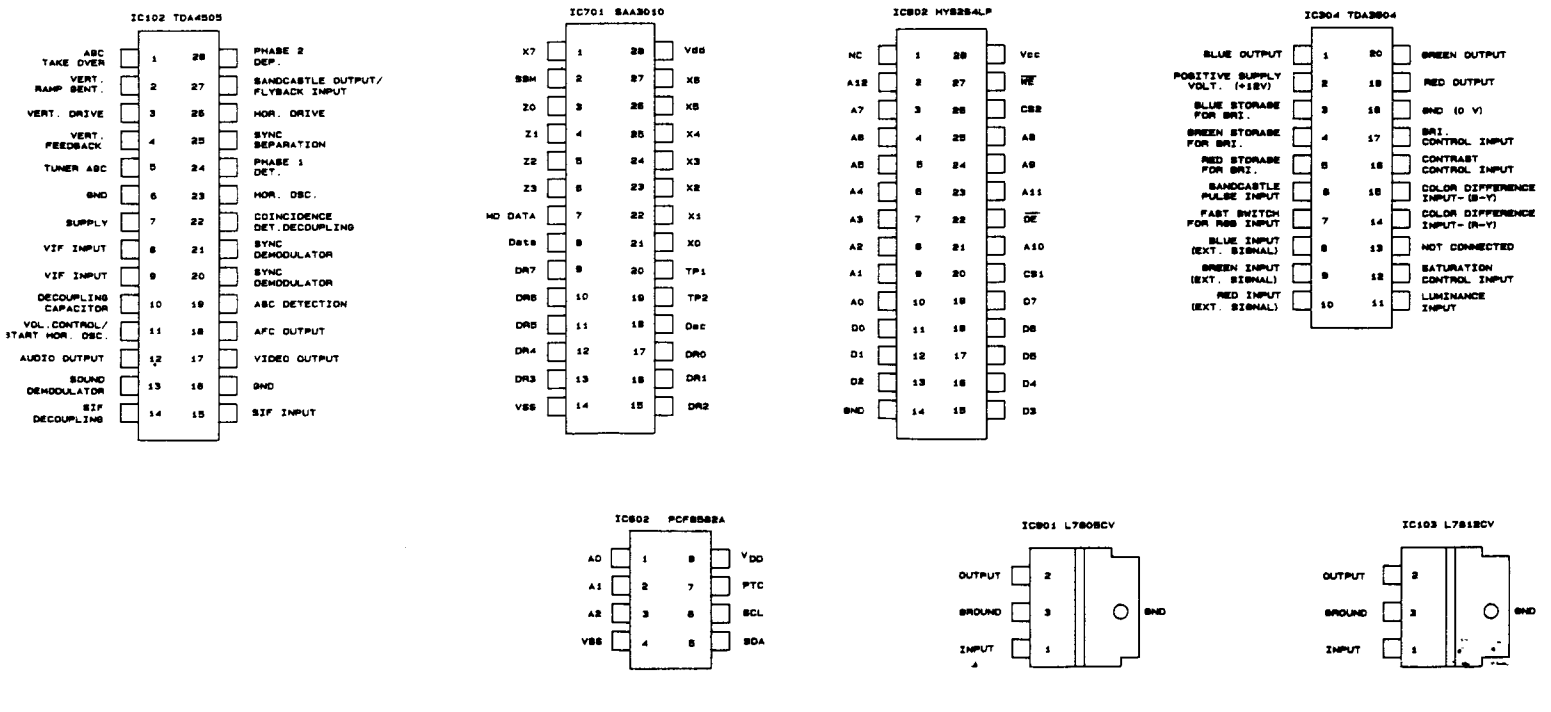


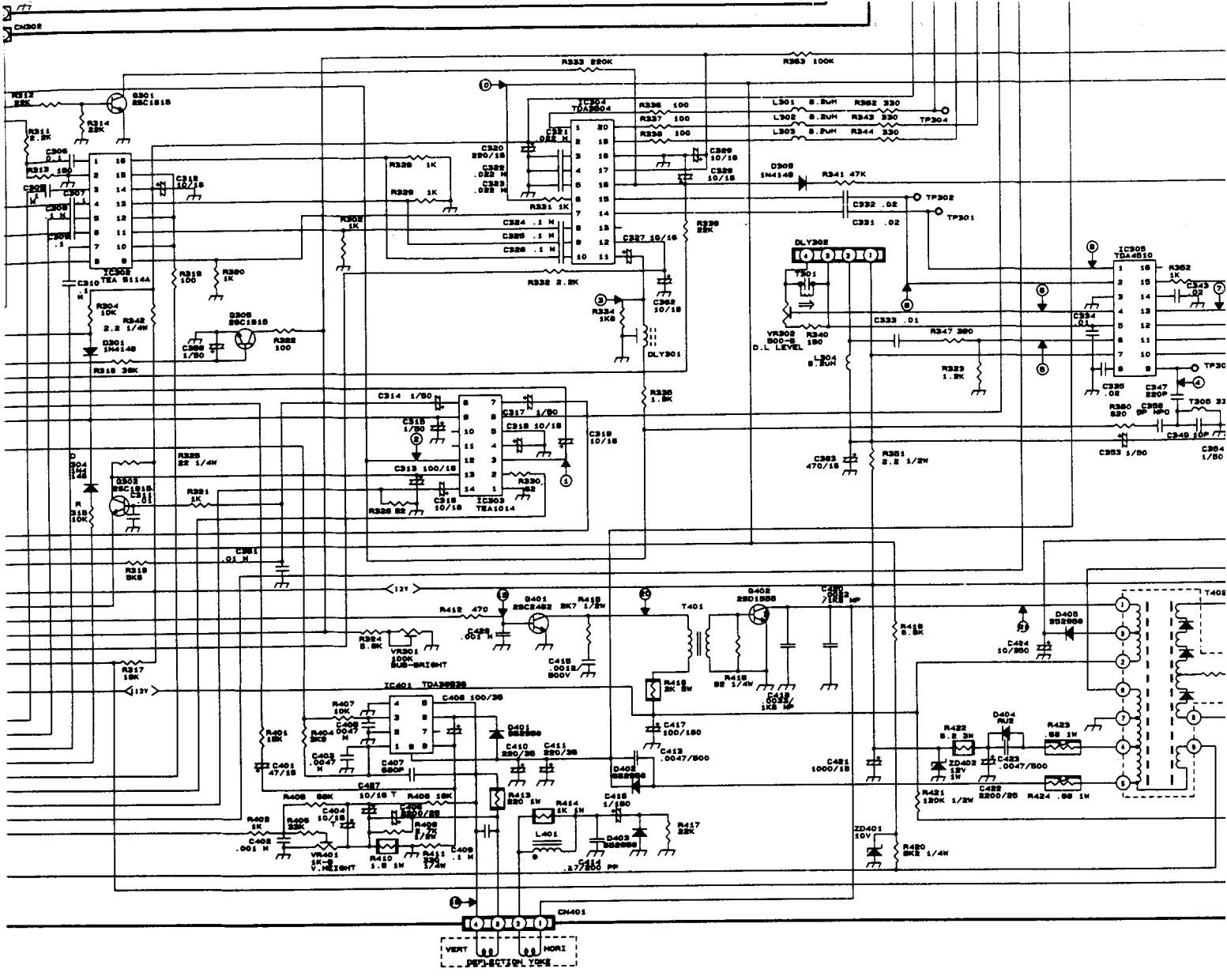

TUNER
IC101 TDA4505E
IC103 L7812
L102 10 uH
L103 6.8uH
CF103 5.5MHZ
CF105 6.5MHZ
TP101
TP102
TP103
TP104
TP105
TP106
TP107

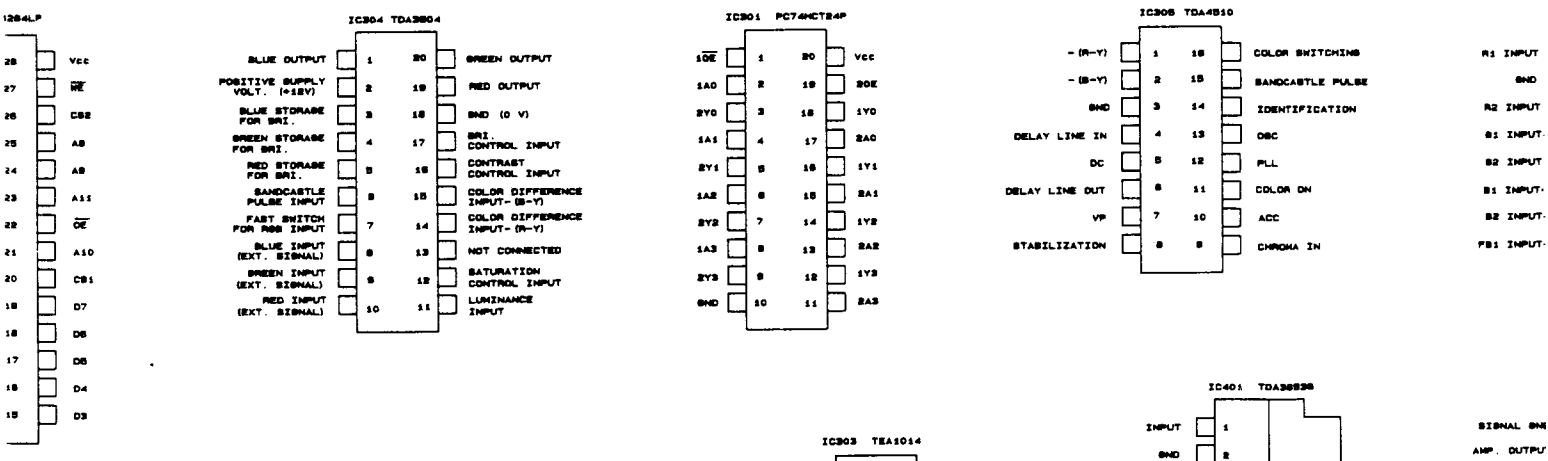

CN801
CN802
CN803
SR512 POWER SWITCH
F901 FUSE T3.15A/250V
TH801 180D
LF801
LS02 DEGAUSSING COIL
AC INPUT
TS01

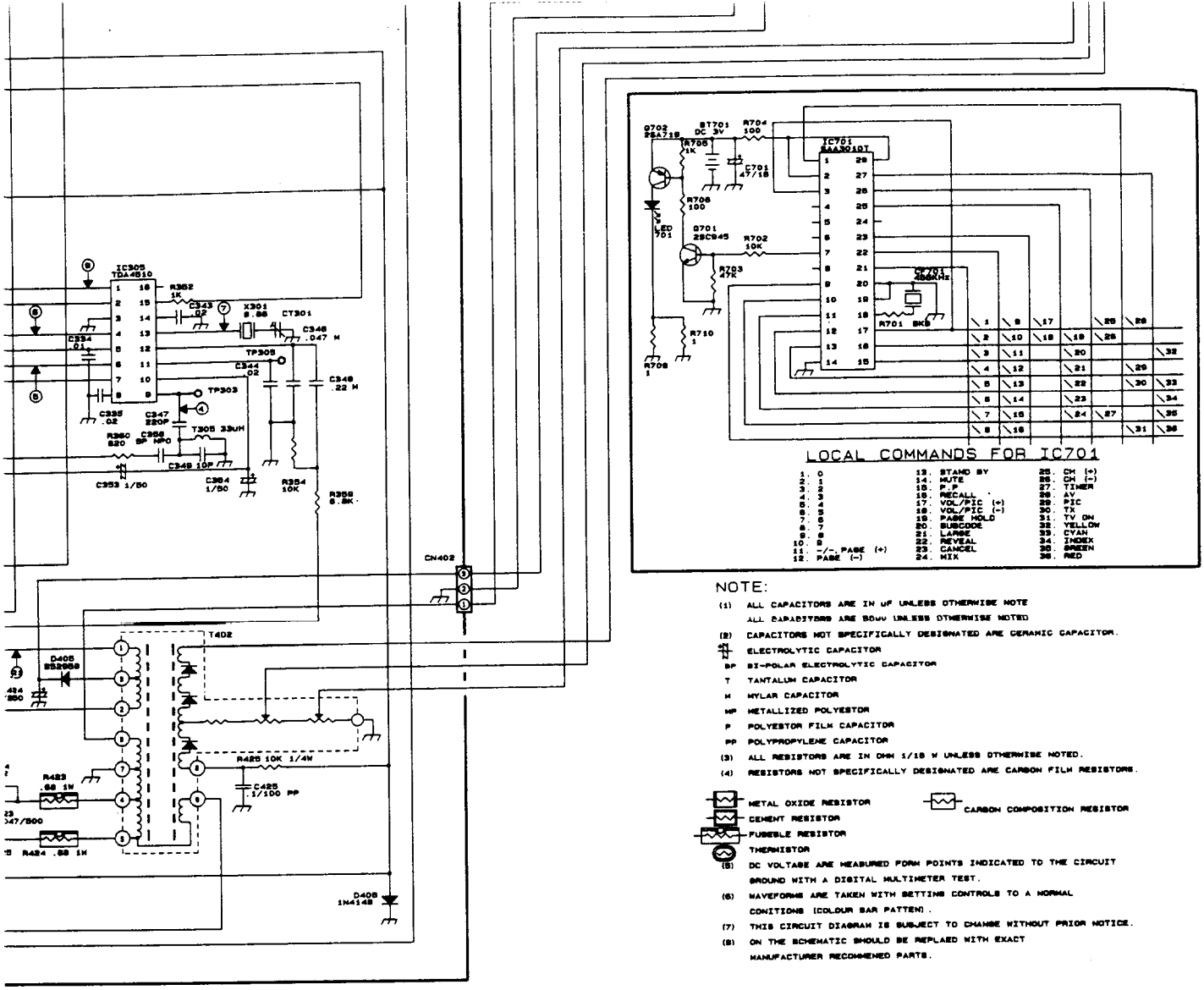

IC801 SAAB246
IC801 PCA84C840P
IC102 TDA4505
VDDD
OSCOUT
OSCIN
OSCGND
VSSA
REF+
BLACK
CVBS
IREF
VDDA
POL
STTV/LES
VCR/FFS
VSSD
R
G
B
RGBREF
SLAN
CDR
ODD/EVEN
Y
SCL
SDA
VSSD
VTUNN
VDL
BRI
SAT
CON/HUE
BAL/TON/HUE
VHF-L
VHF-H
AFC
UHF
VTR
AV
KEYS0
KEYS1
KEYS2
KEYS3
KEYS4
KEYS5
KEYS6
MOSTR
VSS
VDD
STDBY
SDA
SCL
SYSTEM
EFFECT
SNDO
RMOT
SNDI
RESET
XTAL2
XTAL1
TEST
IDENT
DOSC
VSYNC
HSYNC
FSL
BLUE
GREEN
RED
ABC TAKE OVER
VERT. RAMP GENT.
VERT. DRIVE
VERT. FEEDBACK
TUNER ABC
SND
SUPPLY
VIF INPUT
VIF INPUT
DECOUPLING CAPACITOR
VOL. CONTROL/ START HOR. OSC.
AUDIO OUTPUT
SOUND DEMODULATOR
SIF DECOUPLING
PHASE 2 DEP.
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET.
HOR. OSC.
COINCIDENCE DET. DECOUPLING
SYNC DEMODULATOR
SYNC DEMODULATOR
ABC DETECTION
AFC OUTPUT
VIDEO OUTPUT
SND
SIF INPUT
X7
SBM
Z0
Z1
Z2
Z3
MD DATA
Data
DR7
DR6
DR5
DR4
DR3
VSS




IC102 TDA4505
ABC TAKE OVER
VERT. RAMP SENT.
VERT. DRIVE
VERT. FEEDBACK
TUNER AGC
GND
SUPPLY
VIF INPUT
VIF INPUT
DECOUPLING CAPACITOR
VOL.CONTROL/ START HOR. OSC.
AUDIO OUTPUT
SOUND DEMODULATOR
SIF DECOUPLING
PHASE 2 DEP.
SANDCASTLE OUTPUT/ FLYBACK INPUT
HOR. DRIVE
SYNC SEPARATION
PHASE 1 DET.
HOR. OSC.
COINCIDENCE DET.DECOUPLING
SYNC DEMODULATOR
SYNC DEMODULATOR
ABC DETECTION
AFC OUTPUT
VIDEO OUTPUT
GND
SIF INPUT
IC701 SAA3010
X7
SSM
Z0
Z1
Z2
Z3
HD DATA
Data
DR7
DR6
DR5
DR4
DR3
VSS
Vdd
X5
X4
X3
X2
X1
X0
TP1
TP2
Osc
DR0
DR1
DR2
IC802 HY62S4LP
NC
A12
A7
A6
A5
A4
A3
A2
A1
A0
D0
D1
D2
GND
Vcc
WE
CS2
A8
A9
A11
OE
A10
CS1
D7
D6
D5
D4
D3
IC304 TDA3804
BLUE OUTPUT
POSITIVE SUPPLY VOLT. (+12V)
BLUE STORAGE FOR BRI.
GREEN STORAGE FOR BRI.
RED STORAGE FOR BRI.
SANDCASTLE PULSE INPUT
FAST SWITCH FOR RGB INPUT
BLUE INPUT (EXT. SIGNAL)
GREEN INPUT (EXT. SIGNAL)
RED INPUT (EXT. SIGNAL)
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT- (B-Y)
COLOR DIFFERENCE INPUT- (R-Y)
NOT CONNECTED
SATURATION CONTROL INPUT
LUMINANCE INPUT
IC602 PCF8582A
A0
A1
A2
VSS
VDD
PTC
SCL
SDA
IC901 L7805CV
OUTPUT
GROUND
INPUT
GND
IC103 L7812CV
OUTPUT
GROUND
INPUT
GND


CN302
R333 220K
R363 100K
IC304 TDA3804
R326 100
R337 100
R338 100
L301 8.2uH
L302 8.2uH
L303 8.2uH
R362 330
R343 330
R344 330
TP304
C321 .022 M
C320 220/16
C322 .022 M
C323 .022 M
C329 10/16
C328 10/16
D308 1N4148
R341 47K
C332 .02
C331 .02
TP302
TP301
R331 1K
C324 .1 M
C325 .1 M
C326 .1 M
C327 10/16
R329 22K
R332 2.2K
DLY302
T301
VR302 500-B D.L LEVEL
R340 180
L304 8.2UH
C333 .01
R347 390
R323 1.2K
R334 1K8
DLY301
IC305 TDA4510
R352 1K
C343 .02
C334 .01
C335 .02
C347 220P
C358 820 5P NPO
C349 10P
C353 1/50
C354 1/50
TP305
R335 1.8K
C314 1/50
C317 1/50
C316 1/50
C318 10/16
C319 10/16
C313 100/16
C315 10/16
IC303 TEA1014
R320 82
R325 82
C351 470/16
R351 2.2 1/2W
R328 1K
R329 1K
R330 1K
C310 1
R304 10K
R342 2.2 1/4W
D301 1N4148
R318 39K
C309 .1
C308 .1 M
C307 .1
C306 .1
R312 22K
R311 2.2K
R314 22K
R313 180
C305 10/16
IC302 TEA 5114A
R316 100
R380 1K
C380 1/50
R382 100
Q305 BSC1815
Q301 BSC1815
R315 10K
R317 18K
R321 1K
C311 .01
Q302 BSC1815
R322 82 1/4W
C312 .01 M
R319 8K8
12V
R412 470
Q401 2SC2482
R418 2K7 1/2W
C426 .001 M
C415 .0018 500V
Q402 2SD1898
T401
R419 2K 5W
R420 82 1/4W
C416 .0022 1K5 MP
R418 8.8K
C424 10/250
D405 BY2956
R422 8.2 3W
D404 RU2
R423 .68 1W
ZD402 12V 1W
C423 .0047/500
C422 2200/25
R424 .68 1W
R421 120K 1/2W
C481 1000/16
ZD401 10V
R420 8K2 1/4W
R384 8.8K
VR301 100K SUB-BRIGHT
IC401 TDA3838
C408 100/35
R407 10K
C405 .0047 M
R404 8K8
R401 18K
C403 .0047 M
C401 47/16
C407 680P
D401 BB809
C410 220/35
C411 220/35
D402 BB809
C417 100/180
C413 .0047/500
R408 68K
C487 10/16 T
R406 18K
C404 10/16 T
C406 1000/25
R409 22K
R405 2K7 1/2W
C402 .001 M
VR401 1K BRIGHT
R410 1.8 1W
R411 220 1/2W
C409 .1 M
R413 220 1W
R414 1K 1W
L401
C414 .27/250 PP
D403 BB809
R417 22K
CN401
VERT
HORI
DEFLECTION YOKE


12B4LP
28 Vcc
27 WE
26 CS2
25 A9
24 A8
23 A11
22 OE
21 A10
20 CS1
19 D7
18 D6
17 D5
16 D4
15 D3
IC304 TDA3804
BLUE OUTPUT
POSITIVE SUPPLY VOLT. (+12V)
BLUE STORAGE FOR BRI.
GREEN STORAGE FOR BRI.
RED STORAGE FOR BRI.
SANDCASTLE PULSE INPUT
FAST SWITCH FOR RGB INPUT
BLUE INPUT (EXT. SIGNAL)
GREEN INPUT (EXT. SIGNAL)
RED INPUT (EXT. SIGNAL)
GREEN OUTPUT
RED OUTPUT
GND (0 V)
BRI. CONTROL INPUT
CONTRAST CONTROL INPUT
COLOR DIFFERENCE INPUT- (B-Y)
COLOR DIFFERENCE INPUT- (R-Y)
NOT CONNECTED
SATURATION CONTROL INPUT
LUMINANCE INPUT
IC301 PC74HCT24P
1OE
1A0
2Y0
1A1
2Y1
1A2
2Y2
1A3
2Y3
GND
Vcc
2OE
1Y0
2A0
1Y1
2A1
1Y2
2A2
1Y3
2A3
IC305 TDA4510
- (R-Y)
- (B-Y)
GND
IDENTIFICATION
DELAY LINE IN
OSC
DC
PLL
DELAY LINE OUT
COLOR ON
VP
ACC
STABILIZATION
CHROMA IN
COLOR SWITCHING
SANDCASTLE PULSE
R1 INPUT
GND
R2 INPUT
G1 INPUT
G2 INPUT
B1 INPUT
B2 INPUT
FB1 INPUT
IC303 TEA1014
GND
EXT. VIDEO DUPUT
INT. VIDEO INPUT
REF.
TIME CONSTANT SWITCHING
SOUND OUTPUT
EXT. SOUND INPUT
EXT. VIDEO INPUT
SUPPLY
INT. VIDEO OUTPUT
BAND III INFORMATION
VIDEO RECORDER KEY
VIDEO AND SOUND SWITCHING
INT. SOUND INPUT
IC401 TDA3838
INPUT
GND
INPUT
GND
OUTPUT
VP
NC
Feedback
VP
SIGNAL GND
AMP. OUTPUT
SUPPLY VOLT
ELECT. FILTER
AMP. INPUT
CONTROL UNIT OUTPUT
CONTROL VOLT
CONTROL UNIT INPUT
POWER GND
IC901 L7805CV
OUTPUT
GROUND
INPUT
GND
IC103 L7812CV
OUTPUT
GROUND
INPUT
GND



LOCAL COMMANDS FOR IC701

1. 0	13. STAND BY	25. CH (+)	
2. 1	14. MUTE	26. CH (-)	
3. 2	15. P.P	27. TIMER	
4. 3	16. RECALL	28. AV	
5. 4	17. VOL/PIC (+)	29. PIC	
6. 5	18. VOL/PIC (-)	30. TV	
7. 6	19. PAGE HOLD	31. TV ON	
8. 7	20. SUBCODE	32. YELLOW	
9. 8	21. LARGE	33. CYAN	
10. 9	22. REVEAL	34. INDEX	
11. -/-. PAGE (+)	23. CANCEL	35. GREEN	
12. PAGE (-)	24. MIX	36. RED	

NOTE:

(1) ALL CAPACITORS ARE IN uF UNLESS OTHERWISE NOTE
ALL CAPACITORS ARE 50Vdc UNLESS OTHERWISE NOTED

(2) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR.

ELECTROLYTIC CAPACITOR

BP BI-POLAR ELECTROLYTIC CAPACITOR

T TANTALUM CAPACITOR

M MYLAR CAPACITOR

MP METALLIZED POLYESTOR

P POLYESTOR FILM CAPACITOR

PP POLYPROPYLENE CAPACITOR

(3) ALL RESISTORS ARE IN OHM 1/10 W UNLESS OTHERWISE NOTED.

(4) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.

METAL OXIDE RESISTOR

CEMENT RESISTOR

FUSEBLE RESISTOR

THERMISTOR

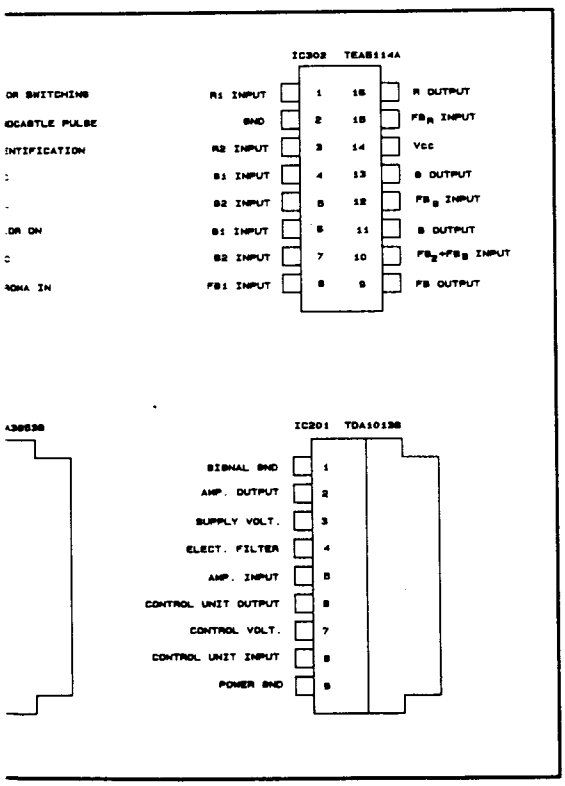
CARBON COMPOSITION RESISTOR

(5) DC VOLTAGE ARE MEASURED FORM POINTS INDICATED TO THE CIRCUIT GROUND WITH A DIGITAL MULTIMETER TEST.

(6) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONITIONS (COLOUR BAR PATTEN).

(7) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

(8) ON THE SCHEMATIC SHOULD BE REPLACED WITH EXACT MANUFACTURER RECOMMENED PARTS.


IC302 TEA8114A
R1 INPUT 1 16 R OUTPUT
GND 2 15 FBR INPUT
R2 INPUT 3 14 Vcc
B1 INPUT 4 13 B OUTPUT
B2 INPUT 5 12 FBB INPUT
B1 INPUT 6 11 B OUTPUT
B2 INPUT 7 10 FBB+FBB INPUT
FB1 INPUT 8 9 FB OUTPUT
IC201 TDA1013B
SIGNAL GND 1
AMP. OUTPUT 2
SUPPLY VOLT. 3
ELECT. FILTER 4
AMP. INPUT 5
CONTROL UNIT OUTPUT 6
CONTROL VOLT. 7
CONTROL UNIT INPUT 8
POWER GND 9

GREAT WALL FRANCE	
SHEMATIC DIAGRAM N°10	
PAL.BG FTZ WITH SCART CONNECTOR AND S TEXT	SUITABLE FOR MODELS 8920 B - 9220 8821 - 8921 - 9213